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FILE 'HOME' ENTERED AT 12:46:06 ON 07 JUL 2010

=> file registry
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.22	0.22

FILE 'REGISTRY' ENTERED AT 12:46:18 ON 07 JUL 2010
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DICTIONARY FILE UPDATES: 6 JUL 2010 HIGHEST RN 1229166-13-5

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http://www.cas.org/support/stngen/stndoc/properties.html

=> s rose bengal
8389 ROSE
275 BENGAL
L1 45 ROSE BENGAL
(ROSE(W)BENGAL)

=> file caplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	11.49	11.71

FILE 'CAPLUS' ENTERED AT 12:46:30 ON 07 JUL 2010
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FILE COVERS 1907 - 7 Jul 2010 VOL 153 ISS 2
FILE LAST UPDATED: 6 Jul 2010 (20100706/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2010
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2010

CAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2010.

CAS Information Use Policies apply and are available at:

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substance identification.

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=> s l1
L2        3739 L1

=> s l2 and (cancer or tumor or tumour or neoplasm)
        462952 CANCER
         67991 CANCERS
        479603 CANCER
                  (CANCER OR CANCERS)
        551638 TUMOR
        197547 TUMORS
        611659 TUMOR
                  (TUMOR OR TUMORS)
          4936 TUMOUR
          1869 TUMOURS
          6684 TUMOUR
                  (TUMOUR OR TUMOURS)
        612108 TUMOR
                  (TUMOR OR TUMOUR)
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        551638 TUMOR
        197547 TUMORS
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                  (TUMOR OR TUMORS)
        612108 TUMOUR
                  (TUMOUR OR TUMOR)
        604579 NEOPLASM
         38964 NEOPLASMS
        622020 NEOPLASM
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L3          103 L2 AND (CANCER OR TUMOR OR TUMOUR OR NEOPLASM)
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        860474 RADIATION
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        866435 RADIATION
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       1871816 X
       1276986 RAY
        239863 RAYS
       1363666 RAY
                  (RAY OR RAYS)
       1026621 X-RAY
                  (X(W)RAY)
         39420 RADIOTHERAPY
            59 RADIOTHERAPIES
         39446 RADIOTHERAPY
                  (RADIOTHERAPY OR RADIOTHERAPIES)
          3390 RADIOSENSITIZATION
             2 RADIOSENSITIZATIONS
          3391 RADIOSENSITIZATION
                  (RADIOSENSITIZATION OR RADIOSENSITIZATIONS)
            10 RADIOSENSITISATION
          3392 RADIOSENSITIZATION
                  (RADIOSENSITIZATION OR RADIOSENSITISATION)
L4          24 L3 AND (RADIATION OR X-RAY OR RADIOTHERAPY OR RADIOSENSITIZATION
               )

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5          24 DUP REM L4 (0 DUPLICATES REMOVED)

=> d l5 1-24 ibib abs

L5   ANSWER 1 OF 24  CAPLUS  COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER:         2010:175814  CAPLUS
DOCUMENT NUMBER:          152:247628
TITLE:                    Composition for a tissue repair implant and methods of
                          making the same
INVENTOR(S):              Chen, Jingsong; Wolfinbarger, Lloyd; Chen, Silvia S.
PATENT ASSIGNEE(S):       Lifenet Health, USA
SOURCE:                   PCT Int. Appl., 70pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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     WO 2010016942        A1    20100211    WO 2009-US4556         20090807
         W:  AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
             CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG,
             ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA,
             MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE,
             PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV,
             SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
             IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI,
             SK, SM, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG,
             ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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US 20100036503 A1 20100211 US 2008-188127 20080807
PRIORITY APPLN. INFO.: US 2008-188127 A 20080807
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB The invention is directed to a process for making a tissue repair implant having a porous sponge-like structure to repair bone, cartilage, or soft tissue defects. A process for preparing a biol. functional tissue repair implant comprises steps of (a) producing a connective tissue homogenate from one or more connective tissues, (b) mixing the connective tissue homogenate with a carrier solution to produce a connective tissue carrier, (c) optionally mixing one or more natural or synthetic bone fragments with said connective tissue carrier to produce a tissue repair mixture, (d) freezing or freeze-drying the tissue repair mixture to produce a porous sponge-like structure and create a three-dimensional framework to entrap the natural or synthetic bone fragments, and (e) treating the frozen or freeze-dried porous sponge-like structure with one or more treatment solns. to produce a stabilized porous sponge-like structure. A crudely fragmented connective tissue from one or more connective tissues is optionally mixed with the tissue repair mixture before freezing or freeze-drying. Thus, homogenized fascia lata was mixed with a sodium alginate solution to produce a connective tissue carrier that was mixed further with crudely fragmented fascia and sized, freeze-dried demineralized bone (DMB) powder. The mixture was distributed into molds with predetd. shapes and sizes, freeze-dried, treated with CaCl2, washed with water, freeze-dried again, optionally exposed to a neg. hydrostatic pressure to allow the expansion of the DMB mixture to a preset thickness, and sterilized. The freeze-dried, molded, tissue repair implants obtained were porous sponge-like structure with DMB particles having high mech. strength and maintaining the shape of their mold.
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2010:382585 CAPLUS
DOCUMENT NUMBER: 152:373811
TITLE: Intracorporeal medicaments for high energy phototherapeutic treatment of disease
INVENTOR(S): Dees, H. Craig; Scott, Timothy C.; Wachter, Eric A.; Fisher, Walter G.; Smolik, John
PATENT ASSIGNEE(S): Provectus Pharmatech, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 15pp., Cont.-in-part of U.S. Ser. No. 542,533.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20100076246	A1	20100325	US 2009-543653	20090819
CA 2252782	A1	19980507	CA 1997-2252782	19971027
EP 1032321	A1	20000906	EP 1997-948121	19971027
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001503748	T	20010321	JP 1998-520604	19971027
IL 128356	A	20011125	IL 1997-128356	19971027
US 6331286	B1	20011218	US 1998-216787	19981221
WO 9963900	A1	19991216	WO 1999-US12056	19990528
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ,				

TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9944100	A	19991230	AU 1999-44100	19990528	
JP 2002517419	T	20020618	JP 2000-552976	19990528	
IN 211142	A1	20071214	IN 2000-CN790	20001207	
JP 2003526091	T	20030902	JP 2001-564686	20010307	
US 20020001567	A1	20020103	US 2001-817448	20010326	
TW 515707	B	20030101	TW 2001-90105458	20010329	
AT 357912	T	20070415	AT 2001-926602	20010403	
ES 2283406	T3	20071101	ES 2001-926602	20010403	
US 20050207976	A1	20050922	US 2005-124654	20050509	
US 20070078076	A1	20070405	US 2006-542533	20061002	
PRIORITY APPLN. INFO.:			US 1998-216787	A2	19981221
			US 2000-195090P	P	20000406
			US 2001-817448	A2	20010326
			US 2006-542533	A2	20061002
			US 1996-741370	A	19961030
			WO 1997-US19249	W	19971027
			US 1998-96832	A	19980612
			WO 1999-US12056	W	19990528
			US 1999-382622	A3	19990825
			US 2000-187958P	P	20000309
			US 2001-779808	A	20010208
			WO 2001-US7231	W	20010307

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 152:373811

AB New intracorporeal radiodense medicaments and certain medical uses and methods for use of such high energy phototherapeutic medicaments for treatment of human or animal tissue are described, wherein a primary active component of such medicaments is a halogenated xanthene or halogenated xanthene derivative The halogenated xanthenes constitute a family of potent radiosensitizers that become photoactivated upon irradiation of the treatment site with ionizing radiation. In embodiments of the present invention, such medicaments are used for treatment of a variety of conditions affecting the skin and related organs, the mouth and digestive tract and related organs, the urinary and reproductive tracts and related organs, the respiratory tract and related organs, the circulatory system and related organs, the head and neck, the endocrine and lymphoreticular systems and related organs, various other tissues, such as connective tissues and various tissue surfaces exposed during surgery, as well as various tissues exhibiting microbial or parasitic infection. In another embodiment, such medicaments are produced in various formulations including liquid, semisolid, solid or aerosol delivery vehicles.

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L5 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2010:175815 CAPLUS
DOCUMENT NUMBER: 152:247629
TITLE: Composition for a tissue repair implant and methods of making the same
INVENTOR(S): Chen, Silvia S.; Chen, Jingsong; Wolfinbarger, Lloyd, Jr.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 24pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20100036503	A1	20100211	US 2008-188127	20080807
WO 2010016942	A1	20100211	WO 2009-US4556	20090807

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2008-188127 A 20080807

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention is directed to a process for making a tissue repair implant having a porous sponge-like structure to repair bone, cartilage, or soft tissue defects. A process for preparing a biol. functional tissue repair implant comprises steps of (a) producing a connective tissue homogenate from one or more connective tissues, (b) mixing the connective tissue homogenate with a carrier solution to produce a connective tissue carrier, (c) optionally mixing one or more natural or synthetic bone fragments with said connective tissue carrier to produce a tissue repair mixture, (d) freezing or freeze-drying the tissue repair mixture to produce a porous sponge-like structure and create a three-dimensional framework to entrap the natural or synthetic bone fragments, and (e) treating the frozen or freeze-dried porous sponge-like structure with one or more treatment solns. to produce a stabilized porous sponge-like structure. A crudely fragmented connective tissue from one or more connective tissues is optionally mixed with the tissue repair mixture before freezing or freeze-drying. The tissue repair implant having a porous sponge-like structure is optionally combined with one or more bioactive supplements or one or more agents that have bioactive supplement binding site(s) to increase the affinity of growth factors, differentiation factor, cytokines, or anti-inflammatory agents to the tissue repair implant. The invention is further directed toward applying such tissue repair implant for tissue repair. Thus, homogenized fascia lata was mixed with a sodium alginate solution to produce a connective tissue carrier that was mixed further with crudely fragmented fascia and sized, freeze-dried demineralized bone matrix (DMB) powder. The mixture was distributed into molds with predetd. shapes and sizes, freeze-dried, treated with CaC12, washed with water, freeze-dried again, optionally exposed to a neg. hydrostatic pressure to allow the expansion of the DMB mixture to a preset thickness, and sterilized. The freeze-dried, molded, tissue repair implants obtained were porous sponge-like structure with DMB particles having high mech. strength and maintaining the shape of their mold.

L5 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER:	2009:918420 CAPLUS
DOCUMENT NUMBER:	151:205597
TITLE:	Wearable photoactivator for ocular therapeutic applications and uses thereof for treatment of ocular disease including infection, neoplasia, and corneal dystrophies
INVENTOR(S):	Soltz, Robert; Soltz, Barbara Ann; Behrens, Ashley
PATENT ASSIGNEE(S):	The Johns Hopkins University, USA
SOURCE:	U.S. Pat. Appl. Publ., 24pp.

CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20090192437	A1	20090730	US 2008-236986	20080924
PRIORITY APPLN. INFO.:			US 2007-994979P P	20070924

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The invention provides a wearable device for delivery of light of a desired wavelength and power to the cornea of a subject. The device includes a frame for attachment of a light source housing which includes a light source and a lens positioned in the housing to allow light to be directed to the eye of the subject, and the light source is operably linked to a power source. The invention provides method for the prevention and treatment of ocular disease including infection, neoplasia, and corneal dystrophies. The device of the invention can be used in conjunction with photoactive therapeutic agents. Thus, patient with acanthamoebic keratitis in one eye was fitted with a wearable photoactivator of the invention having a UV-A light source; the housing of the light source is adjusted to provide light over 3 to 10 mm spot size on the eye, depending on the area to be exposed, based on the extent of the infection; the fluence of the light is such that it warrants its absorption in the layers of the cornea before penetrating into other ocular structures, thereby reducing the exposure of other structures to the light; dropper is inserted through an opening in the housing to apply riboflavin to the eye in the form of drops and the riboflavin solution concentration is in the range of about 0.1 % to 5 % to completely bathe the eye in riboflavin.

L5 ANSWER 5 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2008:914722 CAPLUS
DOCUMENT NUMBER: 151:191670
TITLE: Comparison on photodynamic actions of AlPcS2 and Rose Bengal on erythrocytes
AUTHOR(S): Zhorina, L. V.; Zmievskii, G. N.
CORPORATE SOURCE: N. E. Bauman Moscow State Technical University, Moscow, Russia
SOURCE: Tekhnologii Zhivykh Sistem (2008), 5(2-3), 51-56
CODEN: TZSEAC
PUBLISHER: Izdatel'stvo "Radiotekhnika"
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB The search for new photosensitizes (PS) for traditional purposes and new fields of photodynamic action (PDA) is being carried out now. At the same time the effectiveness of different Pc action in similar conditions is compared. Rose Bengal (RB) is known as Pc with high quantum output of singlet oxygen (ϕ = 0,76) and is characterized by a set of destroying mechanisms in case the PDA. Deficiency of RB is absorbing maximum at green field of spectra (520 and 560 nm). Nevertheless RB is effective PS for different tissues (including cancer) and for red blood cells. Sulfonated aluminum phthalocyanine has more suitable for PDA intensive absorb maximum in far red field of spectra (670...680 nm), high quantum yield of singlet oxygen (up to 0,5), high accumulation level in tumor tissues in comparison with normal ones, is removing from organism quite rapidly. The comparison of the photodynamic action on erythrocytes AlPcS2 and Rose Bengal is presented. The following events are possible at PDA: erythrocytes geometry changing, breaking of membrane and erythrocyte's destruction. At the same time erythrocytes are prevailing among others

blood elements therefore they determine optical, mech. and other properties of blood. So, radical changes of optical blood properties (absorption, scattering) should be expected. The optical transparency of erythrocyte suspension at PDA was measured. It was discovered that (1) erythrocytes with accumulated PS die at low irradiation doses; (2) erythrocytes incubated and nonincubated with RB die at higher irradiation doses than with AlPcS2 ones. Point out that absorb maximum of oxyHb are at 540 and 576 nm, so they are very close to absorb maximum of RB. This "neighborhood" may lead to catching the source radiation energy by Hb instead of RB. Probably this is the reason of the second result of our investigation. External appearance of erythrocytes was under visual control. It was revealed that at in rise transparency the erythrocytes form at first became spherical, then it looked like a volume star, after that erythrocytes were destroyed and disappeared from the field of vision of the microscope. So we conclude that the form changes and the following gemolyze of erythrocytes have place because of osmotic pressure changes due to the destruction of membrane transport, breaking barrier properties and permeability of membrane. The fact that AlPcS2 causes photodynamic effect at much less doses of irradiation than Rose Bengal is shown. If our idea about catching the source radiation energy by Hb instead of RB is correct, we can say that the use of RB as PS for PDA is not effective.

L5 ANSWER 6 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER:	2007:88319 CAPLUS
DOCUMENT NUMBER:	146:158285
TITLE:	Imaging protocols
INVENTOR(S):	Rousso, Benny; Dickman, Dalia; Nir, Yael; Nagler, Michael; Bronshtine, Zohar; Vallabhajosula, Shankar; Ben-Haim, Shlomo; Ben-Haim, Simona
PATENT ASSIGNEE(S):	Spectrum Dynamics LLC, USA
SOURCE:	PCT Int. Appl., 643pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	9
PATENT INFORMATION:	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007010534	A2	20070125	WO 2006-IL834	20060719
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
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WO 2006051531	A2	20060518	WO 2005-IL1173	20051109
WO 2006051531	A3	20060928		
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RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,				

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CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
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WO 2006054296 A2 20060526 WO 2005-IL1215 20051116

WO 2006054296 A3 20060713

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WO 2006075333 A2 20060720 WO 2006-IL59 20060115

WO 2006075333 A3 20061214

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WO 2006129301 A2 20061207 WO 2006-IL562 20060511

WO 2006129301 A3 20070705

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EP 1909853 A2 20080416 EP 2006-756258 20060719

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WO 2007054935 A2 20070518 WO 2006-IL1291 20061109

WO 2007054935 A3 20071122

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EP 1952180 A2 20080806 EP 2006-809851 20061109
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WO 2007074467 A2 20070705 WO 2006-IL1511 20061228
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
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EP 1971257 A2 20080924 EP 2006-832278 20061228
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US 20070265230 A1 20071115 US 2007-747378 20070511
US 7601966 B2 20091013 US 2007-769826 20070628
WO 2008010227 A3 20090507 WO 2007-IL918 20070719
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
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US 20080230702 A1 20080925 US 2007-980683 20071031
US 7705316 B2 20100427 US 2008-84559 20081126
US 20090304582 A1 20091210 US 2009-989223 20090805
US 20100021378 A1 20100128 US 2009-309479 20090909
US 20100001200 A1 20100107 US 2009-561751 20090917

PRIORITY APPLN. INFO.:

US 2005-700299P	P	20050719
US 2005-700317P	P	20050719
US 2005-700318P	P	20050719
US 2005-700752P	P	20050720
US 2005-700753P	P	20050720
US 2005-702979P	P	20050728
US 2005-720034P	P	20050926
US 2005-720541P	P	20050927
US 2005-720652P	P	20050927
IL 2005-171346	A	20051010
WO 2005-IL1173	A	20051109
WO 2005-IL1215	A	20051116
IL 2005-172349	A	20051127
US 2005-741440P	P	20051202
US 2005-750287P	P	20051213
US 2005-750334P	P	20051215
US 2005-750597P	P	20051215
WO 2006-IL59	A	20060115
US 2006-763458P	P	20060131
US 2006-799688P	P	20060511

WO 2006-IL562	A	20060511
US 2006-800845P	P	20060517
US 2006-800846P	P	20060517
US 2006-816970P	P	20060628
US 2002-135883	A2	20020429
US 2004-625971P	P	20041109
US 2004-628105P	P	20041117
US 2004-630561P	P	20041126
US 2004-632236P	P	20041202
US 2004-632515P	P	20041203
US 2004-635630P	P	20041214
US 2004-636088P	P	20041216
US 2005-640215P	P	20050103
US 2005-34007	A	20050113
WO 2005-IL48	A	20050113
US 2005-648385P	P	20050201
US 2005-648690P	P	20050202
US 2005-675892P	P	20050429
WO 2005-IL572	A	20050601
WO 2005-IL575	A	20050601
US 2005-691780P	P	20050620
US 2005-750294P	P	20051213
US 2005-754199P	P	20051228
WO 2006-IL834	W	20060719
WO 2006-IL840	A	20060719
WO 2006-IL1291	W	20061109
US 2006-607075	A2	20061201
US 2006-875833P	P	20061220
WO 2006-IL1511	W	20061228
US 2007-798017	A	20070509
US 2007-750057	A	20070517
US 2007-750075	A2	20070517
US 2007-769826	A1	20070628
WO 2007-IL918	W	20070719

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Protocols for radioimaging an event or disorder are provided. An exemplary protocol comprises a method of radioimaging a myocardial perfusion, the method comprising in sequence: (a) administering to a subject about 3 mCi Tl201 thallous chloride; (b) allowing said subject to rest; (c) radioimaging a heart of said subject; (d) subjecting said subject to a phys. stress; (e) administering to said subject at a peak of said phys. stress about 20-30 mCi Tc99m sestamibi; and (f) radioimaging said heart of said subject, thereby radioimaging a myocardial perfusion.

L5 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER:	2007:996785 CAPLUS
DOCUMENT NUMBER:	147:317211
TITLE:	Intracorporeal medicaments for high energy phototherapeutic treatment of disease
INVENTOR(S):	Dees, H. Craig; Scott, Timothy C.; Wachter, Eric A.; Fisher, Walter G.; Smolik, John
PATENT ASSIGNEE(S):	Provectus Pharmatech, Inc., USA
SOURCE:	U.S. Pat. Appl. Publ., 16 pp., Cont.-in-part of U.S. Ser. No. 817,448. CODEN: USXXCO
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	13

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 20070208076	A1	20070906	US 2007-715780		20070308
CA 2252782	A1	19980507	CA 1997-2252782		19971027
EP 1032321	A1	20000906	EP 1997-948121		19971027
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2001503748	T	20010321	JP 1998-520604		19971027
IL 128356	A	20011125	IL 1997-128356		19971027
US 6331286	B1	20011218	US 1998-216787		19981221
WO 9963900	A1	19991216	WO 1999-US12056		19990528
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
AU 9944100	A	19991230	AU 1999-44100		19990528
JP 2002517419	T	20020618	JP 2000-552976		19990528
IN 211142	A1	20071214	IN 2000-CN790		20001207
JP 2003526091	T	20030902	JP 2001-564686		20010307
US 20020001567	A1	20020103	US 2001-817448		20010326
TW 515707	B	20030101	TW 2001-90105458		20010329
AT 357912	T	20070415	AT 2001-926602		20010403
ES 2283406	T3	20071101	ES 2001-926602		20010403
US 20030125376	A1	20030703	US 2002-331854		20021230
US 6991776	B2	20060131			
US 20050207976	A1	20050922	US 2005-124654		20050509
PRIORITY APPLN. INFO.:			US 1998-216787	A2	19981221
			US 2000-195090P	P	20000406
			US 2001-817448	A2	20010326
			US 1996-741370	A	19961030
			WO 1997-US19249	W	19971027
			US 1998-96832	A	19980612
			WO 1999-US12056	W	19990528
			US 1999-382622	A3	19990825
			US 2000-187958P	P	20000309
			US 2001-779808	A	20010208
			WO 2001-US7231	W	20010307

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB New intracorporeal radiodense medicaments and certain medical uses and methods for use of such high energy phototherapeutic medicaments for treatment of human or animal tissue are described, wherein a primary active component of such medicaments is a halogenated xanthene or halogenated xanthene derivative The halogenated xanthenes constitute a family of potent radiosensitizers that become photoactivated upon irradiation of the treatment site with ionizing radiation. In embodiments of the present invention, such medicaments are used for treatment of a variety of conditions affecting the skin and related organs, the mouth and digestive tract and related organs, the urinary and reproductive tracts and related organs, the respiratory tract and related organs, the circulatory system and related organs, the head and neck, the endocrine and lymphoreticular systems and related organs, various other tissues, such as connective tissues and various tissue surfaces exposed during surgery, as well as various tissues exhibiting microbial or parasitic infection. In another embodiment, such medicaments are produced in various formulations including liquid, semisolid, solid or aerosol delivery vehicles.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L5 ANSWER 8 OF 24 CAPLUS

ACCESSION NUMBER: 2006:976194 CAPLUS
DOCUMENT NUMBER: 145:328416
TITLE: Ellagic acid-related compound and polyaromatic phenol inhibitors of glutathione-S-transferase, and their therapeutic use
INVENTOR(S): Becker-Brandenburg, Katja; Zimmermann, Herbert; Fritz-Wolf, Karin
PATENT ASSIGNEE(S): Universitaet Giessen, Germany; Max-Planck-Gesellschaft Zur Foerderung der Wissenschaften e.v.
SOURCE: PCT Int. Appl., 66pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006097472	A2	20060921	WO 2006-EP60707	20060314
WO 2006097472	A3	20070907		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 1865942	A2	20071219	EP 2006-708757	20060314
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
IN 2007DN07684	A	20071109	IN 2007-DN7684	20071008
PRIORITY APPLN. INFO.:			US 2005-661596P	P 20050314
			WO 2006-EP60707	W 20060314

OTHER SOURCE(S): MARPAT 145:328416
AB The invention discloses methods for preventing, treating, or ameliorating medical conditions, including cancer, drug resistance, and parasite infections such as malaria, by administering compds. that are capable of inhibiting glutathione-S-transferase (GST), as well as to the use of these compds. for preparing pharmaceutical compns. for preventing, treating, or ameliorating the medical conditions. Furthermore, the invention discloses ellagic acid-related compound and polyarom. phenol inhibitors of GST, as well as pharmaceutical compns. comprising these GST inhibitors, optionally comprising further compds. known to be effective in treating the medical conditions.
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L5 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:17009 CAPLUS
DOCUMENT NUMBER: 142:107447
TITLE: Bivalent inhibitors of glutathione transferases
INVENTOR(S): Lyon, Robert P.; Atkins, William M.; Maeda, Dean Y.; Zebala, John A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 33 pp.
CODEN: USXXCO

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 20050004038	A1	20050106	US 2004-878732		20040628
PRIORITY APPLN. INFO.:			US 2003-483320P	P	20030627

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 142:107447
AB Bivalent inhibitors having affinity for one or more dimeric glutathione-S-transferase (GST) isoenzymes are provided. The bivalent inhibitors comprise two ligand domains connected by a mol. linker, wherein the ligand domains have affinity for one or more monomers in the one or more dimeric GST isoenzymes. The ligand domains are separated by a distance ranging from about 5 to about 100 Å. The bivalent inhibitors of the invention demonstrate greatly improved affinity for GST isoenzymes. In a specific embodiment, the bivalent inhibitors of the invention further provide affinity for substantially one GST isoenzyme and for substantially one GST class. The bivalent inhibitors of the invention have numerous uses that include the treatment of drug-resistant cancer, malaria, and stimulation of hematopoiesis. For example, an IC50 was determined for each of the C16-20 bis(glutathionyl)alkyl esters (preparation given) with GST isoenzymes A1-1 and P1-1. An IC50 was also determined for the monovalent inhibitor. Notably, each of the bis(glutathionyl alkyl)esters exhibited an IC50 more than one order of magnitude lower than the monovalent benchmark compound and six orders of magnitude lower than Km of glutathione. From this data, it is evident that the bivalent inhibitors exhibit between 10- and 100-fold greater affinities than the corresponding monovalent inhibitor. Different affinities of the bivalent inhibitors for the GSTP1-1 and GSTA1-1 isoenzymes were observed
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L5 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2004:220149 CAPLUS
DOCUMENT NUMBER: 140:266883
TITLE: Chemotherapy method using x-rays
INVENTOR(S): Wang, Chia-gee; Helson, Lawrence
PATENT ASSIGNEE(S): Nanodaynamics, Inc., USA
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004021982	A2	20040318	WO 2003-US27242	20030903
WO 2004021982	A3	20040506		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 20040259811	A1	20041223	US 2003-651307		20030828
AU 2003278748	A1	20040329	AU 2003-278748		20030903
PRIORITY APPLN. INFO.:			US 2002-408313P	P	20020905
			US 2003-651307	A	20030828
			WO 2003-US27242	W	20030903

AB A method of treating cancer in a human uses x-rays to disrupt a linkage in a complex of a chemotherapeutic agent and a carrier compound comprising a preselected element. The complex is administered to the human and then a localized region of cells which contains the cancerous cells is irradiated with line emission x-rays of an energy selected to cause emission of Auger electrons from the pre-selected element of the carrier compound to disrupt the linkage and release the chemotherapeutic agent near the cancer cells. A kit useful for the treatment comprises an x-ray tube capable of emitting monochromatic line emission x-rays and the complex compound A transfer compound useful in the method comprises a chemotherapeutic agent linked to a carrier compound

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2002:240566 CAPLUS
DOCUMENT NUMBER: 136:241657
TITLE: Phototherapeutic and chemotherapeutic immunotherapy against tumors
INVENTOR(S): Dees, H. Craig; Scott, Timothy; Wachter, Eric
PATENT ASSIGNEE(S): Photogen, Inc., USA
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002024199	A1	20020328	WO 2001-US29179	20010919
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 20020107281	A1	20020808	US 2001-952448	20010914
AU 2001096258	A	20020402	AU 2001-96258	20010919
PRIORITY APPLN. INFO.:			US 2000-234654P	P 20000922
			US 2001-952448	A 20010914
			WO 2001-US29179	W 20010919

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present invention is directed to new methods, medicaments and pharmaceutical compns. for improved cancer treatment that lower recurrence of the primary tumor by causing selective, acute destruction of tumor tissue and thereby exposing the immune system to large amts. of substantially non-denatured tumor material over a short period of time. Several examples are provided in which phototherapy, Rose Bengal, or a combination of Rose Bengal and radio-/phototherapy were used in animals to enhance the body's immune system to elicit an antitumor immune response.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS

L5 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2002:964924 CAPLUS
DOCUMENT NUMBER: 138:44708
TITLE: Polymer gel for cancer treatment
INVENTOR(S): Zheng, Ji; Chu, Feng
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 13 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20020192289	A1	20021219	US 2002-173354	20020615
PRIORITY APPLN. INFO.:			US 2001-298943P P	20010618

AB A method is disclosed for cancer treatment based on using a solid polymer gel to completely block blood vessels of tumor. A polymer aqueous solution is injected into blood vessels and formed a solid gel in blood vessels of tumor by applying electromagnetic radiation or temperature source at tumor tissue to inducing crosslinking or phase transition. The tumor cells starve and perish because of without nutrients and oxygen provided by vascularization and metastasis can also be prevented because polymer gels blocks tumor cells to shed into blood circulation, when the blood vessels of tumor are completely blocked by the solid polymer gels. Also, anti-cancer drug including chemotherapy drug, radiation drug or anti-angiogenic drug can be mixed or conjugated with the polymer in polymer aqueous solution to be locally delivered to the tumor after polymer gel formation in the blood vessels of tumor of human or animal. An example photopolymerizable polymer is branched PEG-cinnamylideneacetyl chloride.

L5 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2001:416760 CAPLUS
DOCUMENT NUMBER: 135:16142
TITLE: Radiation-absorbing dyes for treating illnesses associated with abnormal vasculature
INVENTOR(S): Flower, Robert W.; Alam, Abu
PATENT ASSIGNEE(S): Akorn, Inc., USA
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001039764	A2	20010607	WO 2000-US41110	20001010
WO 2001039764	A3	20020110		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,

PT, SE
PRIORITY APPLN. INFO.: US 1999-452117 A 19991130
AB The use of radiation-absorbing dyes (e.g., indocyanine green (ICG), fluorescein, rose bengal) and photodynamic dyes (e.g., hematoporphyrins, aminolevulinic acids, porphyrins, merocyanines, porphycenes, porfimer sodium, verteporfin, Photofrin II, PH-10, chlorins, zinc phthalocyanine, purpurins, pheophorbides, monoclonal antibody-dye conjugates of any of the foregoing dyes) for the treatment of conditions associated with abnormal vasculature, including lesions, and, more specifically, tumors (cancerous and benign) and choroidal neovascularization (CNV) associated with age-related macular degeneration (ARMD) is described. A method for treating a lesion in an animal having a blood vessel that carries blood into the lesion, comprises administering a first composition containing the above photodynamic dye, and a carrier to fill at least a portion of the lesion with the first composition Radiation is applied to the photodynamic dye in the lesion of a type and in an amount sufficient to excite the photodynamic dye, and applying radiation to the blood vessel in an amount sufficient to increase the temperature of the vessel.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2000:513548 CAPLUS
DOCUMENT NUMBER: 133:131883
TITLE: Method for improved radiation therapy
INVENTOR(S): Wachter, Eric; Smolik, John; Dees, H. Craig
PATENT ASSIGNEE(S): Photogen, Inc., USA
SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000043045	A1	20000727	WO 2000-US1815	20000125
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2358989	A1	20000727	CA 2000-2358989	20000125
EP 1146912	A1	20011024	EP 2000-908366	20000125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000007692	A	20011106	BR 2000-7692	20000125
JP 2002535291	T	20021022	JP 2000-594498	20000125
IN 2001CN01007	A	20050304	IN 2001-CN1007	20010717
IN 2001CN01807	A	20050520	IN 2001-CN1807	20010717
MX 2001007487	A	20011203	MX 2001-7487	20010725

PRIORITY APPLN. INFO.: US 1999-236247 A 19990125
WO 2000-US1815 W 20000125
AB A method is disclosed for treating a selected volume of tissue which method includes distributing a radiosensitizer and a plurality of ionizing radiation sources substantially within the volume of tissue to produce treatment zones that are generally uniformly distributed

throughout the volume of tissue. An agent is also disclosed for treating such tissue, wherein the agent includes a radiosensitizer and an ionizing radiation source used in conjunction to define an injectable treatment agent.

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 15 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1997:156828 CAPLUS

DOCUMENT NUMBER: 126:235320

ORIGINAL REFERENCE NO.: 126:45472h,45473a

TITLE: Comparative studies on the tolerance to photoinduced cutaneous inflammatory reactions by psoralen and rose bengal

AUTHOR(S): Kumar, Janak R.; Haberman, Herbert F.; Ranadive, Narendranath S.

CORPORATE SOURCE: Department of Medicine, University of Toronto, Toronto, ON, M5S 1A8, Can.

SOURCE: Journal of Photochemistry and Photobiology, B: Biology (1997), 37(3), 245-253
CODEN: JPPBEG; ISSN: 1011-1344

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The photochemotherapeutic value of topical 8-methoxypsoralen (8-MOP) plus UVA irradiation has been well recognized. The phototoxicity associated with psoralen plus UVA (PUVA) therapy is hallmarked by an increase in vascular permeability (iVP), the accumulation of polymorphonuclear leukocytes (aPMN) and erythema formation in situ. Rose bengal (RB) plus UVA-VIS light (320-700 nm) produces a similar acute inflammatory response, but without immediate or delayed erythema and perceptible edema. This study describes some of the parameters involved in inflammatory reactions evoked by PUVA and the results are compared with RB-induced phototoxic reactions. The rates of iVP and aPMN with a 3 h pulse were quantified using 125I-albumin and 51Cr-labeled PMNs resp. The erythemal response was graded visually. 8-MOP cream was applied topically, while RB was injected intradermally in rabbit skin before UVA-VIS (9.4 J cm-2) irradiation The data show that there is no significant difference in the rates of iVP, aPMN and erythema formation between normal skin sites and mast cell-depleted skin sites when challenged with 8-MOP plus light. These results suggest that in situ mast cells do not play a significant role in 8-MOP-photoinduced acute cutaneous inflammatory reactions, in contrast with RB-photoinduced reactions. The iVP and aPMN responses are minimal or absent in sites subjected to repeated exposure to 8-MOP plus light for three or more consecutive days, suggesting the establishment of a desensitized/unresponsive state. Moreover, 8-MOP-photo-desensitized sites do not produce iVP and aPMN of the same magnitude as the normal (naive) skin sites when challenged with RB plus light. Similarly, RB-photo-desensitized sites do not produce iVP and aPMN of the same magnitude as the native skin sites when challenged with 8-MOP plus light. The desensitization and cross-desensitization of skin sites to 8-MOP- or RB-photoinduced reactions suggest that there is either direct attack on the target cell(s), thereby removing the ability to express adhesion mols., such as endothelial leukocyte adhesion mol. 1 (ELAM-1) or intercellular adhesion mol. 1 (ICAM-1), involved in the accumulation of inflammatory cells, or downregulation of the secretion/release of putative agent(s), such as interleukin 1 (IL-1) and tumor necrosis factor α (TNF-α), responsible for the initiation and progression of cutaneous inflammations.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD

(1 CITINGS)

L5 ANSWER 16 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1996:467217 CAPLUS
DOCUMENT NUMBER: 125:137244
ORIGINAL REFERENCE NO.: 125:25577a,25580a
TITLE: Gels for encapsulation of biological materials
INVENTOR(S): Hubbell, Jeffrey A.; Pathak, Chandrashekhar P.; Sawhney, Amarpreet S.; Desai, Neil P.; Hossainy, Syed F. A.
PATENT ASSIGNEE(S): University of Texas System, USA
SOURCE: U.S., 34 pp., Cont.-in-part of U.S. Ser. No. 870, 540.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5529914	A	19960625	US 1992-958870	19921007
US 5232984	A	19930803	US 1991-740632	19910805
US 5380536	A	19950110	US 1991-740703	19910805
CA 2117584	A1	19930902	CA 1993-2117584	19930301
CA 2117584	C	19980922		
WO 9316687	A1	19930902	WO 1993-US1776	19930301
W: AU, BB, BG, BR, CA, FI, HU, JP, KP, KR, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9337809	A	19930913	AU 1993-37809	19930301
AU 683209	B2	19971106		
EP 627912	A1	19941214	EP 1993-907078	19930301
EP 627912	B1	20040512		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 07506961	T	19950803	JP 1993-515100	19930301
JP 3011767	B2	20000221		
US 5573934	A	19961112	US 1993-24657	19930301
BR 9306041	A	19971118	BR 1993-6041	19930301
AT 266389	T	20040515	AT 1993-907078	19930301
PT 627912	E	20040831	PT 1993-907078	19930301
ES 2220906	T3	20041216	ES 1993-907078	19930301
US 5858746	A	19990112	US 1995-377911	19950125
US 5834274	A	19981110	US 1995-467693	19950606
US 5843743	A	19981201	US 1995-467815	19950606
US 5801033	A	19980901	US 1995-480678	19950607
US 6258870	B1	20010710	US 1997-783387	19970113
US 6231892	B1	20010515	US 1997-969910	19971113
US 6465001	B1	20021015	US 1998-33871	19980303
US 6632446	B1	20031014	US 2000-694836	20001023
US 20020058318	A1	20020516	US 2001-811901	20010319
US 6911227	B2	20050628		
US 20030087985	A1	20030508	US 2001-910663	20010719
US 20040086493	A1	20040506	US 2003-607247	20030625
US 7153519	B2	20061226		
US 20040138329	A1	20040715	US 2003-743687	20031219
US 20040195710	A1	20041007	US 2004-761180	20040120
US 20070100015	A1	20070503	US 2006-644606	20061222
US 7413781	B2	20080819		
US 20080274201	A1	20081106	US 2008-172063	20080711
PRIORITY APPLN. INFO.:			US 1990-598880	B2 19901015
			US 1991-740632	A3 19910805
			US 1991-740703	A2 19910805

US 1992-843485	B2	19920228
US 1992-870540	A2	19920420
US 1992-958870	A	19921007
US 1993-22687	A1	19930301
US 1993-24657	A1	19930301
WO 1993-US1776	A	19930301
US 1994-232054	A3	19940428
US 1994-336393	A3	19941110
US 1995-379848	A2	19950127
US 1995-467693	A1	19950606
US 1995-475175	A2	19950607
US 1995-484160	B3	19950607
US 1995-510089	B1	19950801
US 1997-783387	A1	19970113
US 1998-33871	A1	19980303
US 2000-694836	A1	20001023
US 2001-811901	B2	20010319
US 2001-910663	B1	20010719
US 2004-761180	A3	20040120
US 2006-644606	A1	20061222

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB This invention provides novel methods for the formation of biocompatible membranes around biol. materials using photopolymn. of water-soluble mols. The membranes can be used as a covering to encapsulate biol. materials or biomedical devices, as a ''glue'' to cause >1 biol. substance to adhere together, or as carriers for biol. active species. Several methods for forming these membranes are provided. Each of these methods utilizes a polymerization system containing water-soluble macromers, species which are at once polymers and macromols. capable of further polymerization The macromers are polymerized by using a photoinitiator (such as a dye), optionally a cocatalyst, optionally an accelerator, and radiation in the form of visible or long-wavelength UV light. The reaction occurs either by suspension polymerization or by interfacial polymerization The polymer membrane can be formed directly on the surface of the biol. material, or it can be formed on material which is already encapsulated.

OS.CITING REF COUNT:	144	THERE ARE 144 CAPLUS RECORDS THAT CITE THIS RECORD (164 CITINGS)
REFERENCE COUNT:	46	THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER:	1996:418715 CAPLUS
DOCUMENT NUMBER:	125:109068
ORIGINAL REFERENCE NO.:	125:20327a,20330a
TITLE:	Single crayfish neuron as a new test-object for search and examination of PDT photosensitizers
AUTHOR(S):	Uzdensky, Anatoly B.; Kutko, Olga Yu.; Pasikova, Natalya V.
CORPORATE SOURCE:	Dept. Biophysics and Biocybernetics, Rostov State University, Rostov-on-Don, 344104, Russia
SOURCE:	Proceedings of SPIE-The International Society for Optical Engineering (1996), 2625(Photochemistry: Photodynamic Therapy and Other Modalities), 512-518 CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER:	SPIE-The International Society for Optical Engineering
DOCUMENT TYPE:	Journal
LANGUAGE:	English

AB An isolated crayfish stretch receptor neuron was used as a new test-object for cytophysiol. study of various photosensitizers. This large cell is very suitable for complex electrophysiol. and cytol. investigation. It

generates spikes with a nearly constant frequency, and dynamics of impulse activity shifts under the laser irradiation may be precisely studied at this stable background. The exptl. procedure was as follows: 30 min control spike frequency registration - 30 min neuron staining - He-Ne-laser irradiation with continuous registration of cell response dynamics. The typical response of photosensitized neuron to laser irradiation was impulse activity acceleration after some latency and then irreversible block of spike generation. Dependencies of spike frequency acceleration and neuron lifetime on photosensitizer concentration allowed to compare different photosensitizer efficiencies. As the first set of photosensitizers methylene blue, janus green, rose bengal, and chlorin e6, were studied. Chlorin e6 was most potent photosensitizer among them. Such approach provides evaluation of both: initial threshold alteration in cell membrane and cytotoxic events leading to the cell death.

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

L5 ANSWER 18 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1997:43829 CAPLUS
DOCUMENT NUMBER: 126:154514
ORIGINAL REFERENCE NO.: 126:29815a,29818a
TITLE: Differential response of photosensitized young and old human erythrocytes to photodynamic activation
AUTHOR(S): Rollan, A.; McHale, A. P.
CORPORATE SOURCE: Biotechnology Research Group, School of Applied Biological and Chemical Sciences, University of Ulster, Coleraine Co. Londonderry, BT52 1SA, UK
SOURCE: Cancer Letters (Shannon, Ireland) (1996), Volume Date 1997, 111(1,2), 207-213
CODEN: CALEDQ; ISSN: 0304-3835
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB It has recently been proposed that photosensitized erythrocytes may play an important role in the delivery and targeting of agents such as photosensitizers and chemotherapeutics for use in cancer treatment. It has been suggested that loading of photosensitized erythrocytes with chemotherapeutic agents would provide an ideal means of combining both treatment modalities. The recent application of real-time confocal laser scanning microscopy to the study of immediate effects of photodynamic activation on photosensitized erythrocytes has enabled us, in this study, to distinguish between the differential susceptibility of age-d. resolved sub-populations of human erythrocytes to photodynamic activation. In this study we demonstrate that younger (low age-d.) sub-populations of photosensitized erythrocytes are less susceptible than older (high age-d.) sub-populations to photodynamic activation. We also demonstrate that this phenomenon is exhibited by cells photosensitized using hematoporphyrin derivative and rose bengal as photosensitizers. In both cases no significant difference in uptake of photosensitizer by both populations could be observed using absorbance spectrophotometry. The study suggests that age-d. resolution of erythrocytes prior to loading and photosensitization might provide a means of enhancing the release of loaded components from the photosensitized system and this would, in turn, enhance the potential use of photosensitized erythrocytes as delivery or targeting systems for use in combination cancer therapies.

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1995:494630 CAPLUS

DOCUMENT NUMBER: 122:234390
ORIGINAL REFERENCE NO.: 122:42711a,42714a
TITLE: Photosensitization method of inactivation of viral and bacterial blood contaminants
INVENTOR(S): Platz, Matthew S.; Goodrich, Raymond P., Jr.; Yerram, Nagendar
PATENT ASSIGNEE(S): Cryopharm Corp., USA
SOURCE: PCT Int. Appl., 169 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9502324	A1	19950126	WO 1994-US7499	19940706
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5418130	A	19950523	US 1993-91674	19930713
AU 9472177	A	19950213	AU 1994-72177	19940706
PRIORITY APPLN. INFO.:			US 1993-91674 A	19930713
			US 1990-510234 A	19900416
			US 1990-632277 A	19901220
			US 1991-656254 A	19910215
			US 1991-685931 A	19910416
			US 1992-825691 A	19920127
			US 1993-47749 A	19930414
			WO 1994-US7499 W	19940706

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): MARPAT 122:234390
AB A method is provided for inactivating viral and/or bacterial contamination in blood cellular matter, e.g. erythrocytes, platelets, or protein fractions. The cells or protein fractions are mixed with chemical sensitizers and irradiated with e.g. UV, visible, gamma, or x-ray radiation. Preparation of some sensitizer compds. is included, as are inactivation studies.
OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 20 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1995:818777 CAPLUS
DOCUMENT NUMBER: 123:222385
ORIGINAL REFERENCE NO.: 123:39507a,39510a
TITLE: Agent for visual marking of body tissues
INVENTOR(S): Heywang-Koebrunner, Sylvia; Weitschies, Werner; Speck, Ulrich; Fritzsch, Thomas
PATENT ASSIGNEE(S): Schering A.-G., Germany
SOURCE: Ger. Offen., 5 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

DE 4403789 A1 19950810 DE 1994-4403789 19940203
CA 2182686 A1 19950810 CA 1995-2182686 19950113
WO 9520981 A1 19950810 WO 1995-EP123 19950113
W: CA, JP, US
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
EP 742724 A1 19961120 EP 1995-906937 19950113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
JP 09508397 T 19970826 JP 1995-520342 19950113
PRIORITY APPLN. INFO.: DE 1994-4403789 A 19940203
WO 1995-EP123 W 19950113

AB The invention concerns the use of colored NMR or x-ray contrast media or of dye-containing ultrasound contrast media for the preparation of diagnostic agents for the visual marking of body tissues. Some possible agents that are discussed are: NMR (metalloporphyrins, iron oxide particles, nitroxides, melanin); x-ray (Rose Bengal, erythrosin, tetrachlorotetraiodofluorescein); and ultrasound (dye-containing ultrasound contrast media microparticles composed of a covering of a biol. degradable polymer and a gas- and dye-containing center).

OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

L5 ANSWER 21 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1995:786246 CAPLUS
DOCUMENT NUMBER: 123:192564
ORIGINAL REFERENCE NO.: 123:34165a,34168a
TITLE: Protective effect of amphotericin B against lethal photodynamic treatment in yeast
AUTHOR(S): Lazarova, Galina; Tashiro, Hideo
CORPORATE SOURCE: Inst. Microbiol., Bulgarian Acad. Sci., Sofia, 1113, Bulg.
SOURCE: Microbios (1995), 82(332), 187-96
CODEN: MCBIA7; ISSN: 0026-2633
PUBLISHER: Faculty Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effect of polyenic antibiotic amphotericin B on photodynamically induced cell damage was investigated using Kluyveromyces fragilis. The photosensitizers applied are known to act via cell membrane damage (rose bengal and toluidine blue) or via DNA modification causing genotoxic effects (8-methoxypsoralen). Methylene blue was shown to cause membrane damage comparable with the effect of rose bengal and toluidine blue. Under conditions of photodynamic damage a pronounced protective effect of the antibiotic was evident in increased cell survival with all of the photosensitizers tested. Mitochondrial activity indicated a tendency of the antibiotic to protect the cells. The protective role of amphotericin B is discussed in the light of possible implications for photodynamic therapy of microbial infections.

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS RECORD (6 CITINGS)

L5 ANSWER 22 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1994:239238 CAPLUS
DOCUMENT NUMBER: 120:239238
ORIGINAL REFERENCE NO.: 120:42241a,42244a
TITLE: Photodynamic therapy mediated induction of early response genes
AUTHOR(S): Luna, Marian C.; Wong, Sam; Gomer, Charles J.
CORPORATE SOURCE: Clayton Ocular Oncol. Cent., Child. Hosp., Los Angeles, CA, 90027, USA
SOURCE: Cancer Research (1994), 54(5), 1374-80
CODEN: CNREA8; ISSN: 0008-5472

DOCUMENT TYPE: Journal
LANGUAGE: English
AB Photodynamic therapy (PDT) generates reactive oxygen species which initiate the cytotoxic events of this tumor treatment. The authors demonstrate that PDT mediated oxidative stress induced a transient increase in the early response genes c-fos, c-jun, c-myc, and erg-1 in murine radiation-induced fibrosarcoma cells. Incubation of exponentially growing cells with porphyrin based photosensitizers in the dark also induced an increase in the mRNA levels of early response genes. However, the xanthine photosensitizer, rose bengal, produced increased c-fos mRNA levels only following light treatment. Nuclear runoff expts. confirmed that the induction of c-fos mRNA is controlled in part at the level of transcription. Likewise, a chloramphenicol acetyltransferase reporter construct containing the major c-fos transcriptional response elements was inducible by porphyrin and PDT. Signal transduction pathways associated with PDT mediated c-fos activation were examined by treating cells with protein kinase inhibitors. Staurosporine and 1-(5-isoquinolinesulfonyl)-2-methylpiperazine inhibited PDT mediated c-fos activation while N-(2-guanidinoethyl)-5-isoquinoline-sulfonamide had no effect. In addition, quinacrine, which can inhibit phospholipase activity, blocked PDT induced c-fos mRNA expression. These results suggest that photosensitizer mediated oxidative stress acts through protein kinase-mediated signal transduction pathway(s) to activated early response genes.
OS.CITING REF COUNT: 74 THERE ARE 74 CAPLUS RECORDS THAT CITE THIS RECORD (74 CITINGS)

L5 ANSWER 23 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1991:20198 CAPLUS
DOCUMENT NUMBER: 114:20198
ORIGINAL REFERENCE NO.: 114:3545a,3548a
TITLE: Primary effects of singlet oxygen sensitizers on eggs and embryos of sea urchins
AUTHOR(S): Marthy, Hans Juerg; Murasecco-Suardi, Patricia; Oliveros, Esther; Braun, Andre M.
CORPORATE SOURCE: Lab. Arago, Univ. Pierre et Marie Curie, Banyuls-sur-Mer, 66650, Fr.
SOURCE: Journal of Photochemistry and Photobiology, B: Biology (1990), 7(2-4), 303-15
CODEN: JPPBEG; ISSN: 1011-1344
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Photodynamic effects of rose bengal, a well-known singlet O sensitizer, and of hematoporphyrin derivative, the most widely used sensitizer in photodynamic therapy of tumors, could be visualized using sea urchin eggs and embryos. This biol. material is a valuable model for the anal. of mechanisms and/or sites of the photodynamic action occurring in any living tissue. Depending on the sensitizer used, singlet O may be identified as the main mediator of the cytotoxic effects observed Besides observations made on the living, in particular within the context of fertilization ability of the egg cell, gross damages of the cells are morphol. analyzed by SEM. The results support the working hypothesis explaining the different susceptibility of healthy and tumor cells for photosensitization as a cell cycle phenomenon.
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L5 ANSWER 24 OF 24 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1988:461480 CAPLUS
DOCUMENT NUMBER: 109:61480
ORIGINAL REFERENCE NO.: 109:10213a,10216a
TITLE: Increase of marking stability of radionuclide-marked

carrier materials
INVENTOR(S): Wunderlich, Gerd; Dreyer, Rolf; Fischer, Steffen; Beyer, Renate
PATENT ASSIGNEE(S): Medizinische Akademie "Carl Gustav Carus", Ger. Dem. Rep.
SOURCE: Ger. (East), 3 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 251745	A1	19871125	DD 1986-289719	19860429

PRIORITY APPLN. INFO.: DD 1986-289719 19860429

AB Radioactive particles permit the internal radiation of surrounded space and inoperable tumors. Radionuclide-marked carrier materials are treated with dissolved organic substances, whereby the adhesion of the radionuclide on the carrier is increased. Human serum albumin after marking with a radionuclide such as I-125, I-131, or At-211 was incubated in 1% aqueous Titan yellow, bromphenol blue, bengal rose, or Alizarin S with agitation at room temperature The process was repeated with another organic substance from those listed above. Centrifuged treated protein particles were washed with distilled H2O and physiol. NaCl solution After suspension of the treated microspheres in physiol. NaCl solution, the preparation was ready to be injected.

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=> s "rose bengal"
L6       10800 "ROSE BENGAL"

=> s l6 and (cancer or tumor or tumour or neoplasm)
L7         701 L6 AND (CANCER OR TUMOR OR TUMOUR OR NEOPLASM)

=> s l7 and (radiation or x-ray or radiotherapy or radiosensitization)
L8         115 L7 AND (RADIATION OR X-RAY OR RADIOTHERAPY OR RADIOSENSITIZATIO
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L11           0 L9 AND MONOCHROMATIC

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L9   ANSWER 1 OF 92     MEDLINE on STN
ACCESSION NUMBER:   2000424782     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 10898585
TITLE:              DNA damage induced in cells by gamma and UVA
                    radiation as measured by HPLC/GC-MS and HPLC-EC and
                    Comet assay.
AUTHOR:             Pouget J P; Douki T; Richard M J; Cadet J
CORPORATE SOURCE:   Departement de Recherche Fondamentale sur la Matiere
                    Condensee, SCIB/Laboratoire "Lesions des Acides
                    Nucleiques", CEA/Grenoble, France.
SOURCE:             Chemical research in toxicology, (2000 Jul) Vol.
                    13, No. 7, pp. 541-9.
                    Journal code: 8807448. ISSN: 0893-228X. L-ISSN: 0893-228X.
PUB. COUNTRY:       United States
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
                    (RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200009
ENTRY DATE:         Entered STN: 22 Sep 2000
                    Last Updated on STN: 22 Sep 2000
                    Entered Medline: 12 Sep 2000
AB   The aim of the work was to measure DNA damage induced within tumoral human
     monocytes by gamma rays, UVA radiation, and exogenous
     photosensitizers.  The accurate HPLC-EC assay was used to determine the
     level of 8-oxodGuo.  The formation of FapyGua and FapyAde was monitored by
     HPLC/GC-MS analyses after formic acid hydrolysis at room temperature.  For
     this purpose, cells were exposed to relatively high doses of gamma rays
     and UVA radiation.  The extent of formation of FapyGua in the
     DNA of cells exposed to gamma rays was estimated to be more than 2-fold
     higher than that of 8-oxodGuo, i.e., about 0. 027 lesion per 10(6) bases
     per Gy.  The yield of FapyAde was estimated to be 1 order of magnitude
     lower.  The latter results were used to calibrate the alkaline comet assay
     associated with DNA N-glycosylases.  The latter approach allowed the
     determination of the background level (0.11-0.16 Fpg-sensitive site/10(6)
     bases) and the yields of strand breaks and DNA base damage upon low
     irradiation doses.  Insights into the mechanism of radiation
     -induced DNA damage were gained from these measurements.  A major
     involvement of (1)O(2) with respect to hydroxyl radicals and type I
     photosensitization was thus observed within cells exposed to UVA
     radiation.

L9   ANSWER 2 OF 92     MEDLINE on STN
ACCESSION NUMBER:   1997239912     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 9085568
TITLE:              Comparative studies on the tolerance to photoinduced
                    cutaneous inflammatory reactions by psoralen and
                    rose bengal.
AUTHOR:             Kumar J R; Haberman H F; Ranadive N S
CORPORATE SOURCE:   Department of Medicine, University of Toronto, Ont.,
                    Canada.
SOURCE:             Journal of photochemistry and photobiology. B, Biology,
                    (1997 Feb) Vol. 37, No. 3, pp. 245-53.
                    Journal code: 8804966. ISSN: 1011-1344. L-ISSN: 1011-1344.
PUB. COUNTRY:       Switzerland
DOCUMENT TYPE:      (COMPARATIVE STUDY)
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Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199704
ENTRY DATE: Entered STN: 7 May 1997
Last Updated on STN: 6 Feb 1998
Entered Medline: 30 Apr 1997

AB The photochemotherapeutic value of topical 8-methoxypsoralen (8-MOP) plus UVA irradiation has been well recognized. The phototoxicity associated with psoralen plus UVA (PUVA) therapy is hallmarked by an increase in vascular permeability (iVP), the accumulation of polymorphonuclear leukocytes (aPMN) and erythema formation in situ. Rose bengal (RB) plus UVA-VIS light (320-700 nm) produces a similar acute inflammatory response, but without immediate or delayed erythema and perceptible edema. This study describes some of the parameters involved in inflammatory reactions evoked by PUVA and the results are compared with RB-induced phototoxic reactions. The rates of iVP and aPMN with a 3 h pulse were quantified using 125I-albumin and 51Cr-labelled PMNs respectively. The erythemal response was graded visually. 8-MOP cream was applied topically, while RB was injected intradermally in rabbit skin before UVA-VIS (9.4 J cm-2) irradiation. The data show that there is no significant difference in the rates of iVP, aPMN and erythema formation between normal skin sites and mast cell-depleted skin sites when challenged with 8-MOP plus light. These results suggest that in situ mast cells do not play a significant role in 8-MOP-photoinduced acute cutaneous inflammatory reactions, in contrast with RB-photoinduced reactions. The iVP and aPMN responses are minimal or absent in sites subjected to repeated exposure to 8-MOP plus light for three or more consecutive days, suggesting the establishment of a desensitized/unresponsive state. Moreover, 8-MOP-photo-desensitized sites do not produce iVP and aPMN of the same magnitude as the normal (naive) skin sites when challenged with RB plus light. Similarly, RB-photo-desensitized sites do not produce iVP and aPMN of the same magnitude as the native skin sites when challenged with 8-MOP plus light. The desensitization and cross-desensitization of skin sites to 8-MOP- or RB-photoinduced reactions suggest that there is either direct attack on the target cell(s), thereby removing the ability to express adhesion molecules, such as endothelial leukocyte adhesion molecule 1 (ELAM-1) or intercellular adhesion molecule 1 (ICAM-1), involved in the accumulation of inflammatory cells, or downregulation of the secretion/release of putative agent(s), such as interleukin 1 (IL-1) and tumor necrosis factor alpha (TNF-alpha), responsible for the initiation and progression of cutaneous inflammations.

L9 ANSWER 3 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1996406405 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8810538
TITLE: Photodynamic crosslinking of proteins. I. Model studies using histidine- and lysine-containing N-(2-hydroxypropyl)methacrylamide copolymers.
AUTHOR: Shen H R; Spikes J D; Kopecekova P; Kopecek J
CORPORATE SOURCE: Department of Bioengineering, University of Utah, Salt Lake City, 84112, USA.
CONTRACT NUMBER: CA51578 (United States NCI NIH HHS)
SOURCE: Journal of photochemistry and photobiology. B, Biology, (1996 Jul) Vol. 34, No. 2-3, pp. 203-10.
Journal code: 8804966. ISSN: 1011-1344. L-ISSN: 1011-1344.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 199611
ENTRY DATE: Entered STN: 28 Jan 1997
Last Updated on STN: 28 Jan 1997
Entered Medline: 29 Nov 1996

AB One of the mechanisms by which cells might be damaged during the photodynamic therapy (PDT) of tumors is via the covalent crosslinking of proteins to proteins or to other molecules in the cell. It has been suggested that photodynamically generated singlet oxygen interacts with photo-oxidizable amino acid residues such as His, Cys, Trp and Tyr in one protein molecule to generate reactive species, which in turn interact non-photochemically with residues of these types or with free amino groups in another protein molecule to form a crosslink. In some cases, photochemically generated free radicals may be involved in crosslinking. This paper describes studies on the use of N-(2-hydroxypropyl)methacrylamide (HPMA) copolymers containing epsilon-aminocaproic acid side chains terminating in His (P-Acap-His) or Lys (P-Acap-Lys) as models for the photodynamic crosslinking of proteins. The model copolymer P-Acap-His had a weight-averaged molecular weight of about 22,000 and contained four to five His residues per copolymer molecule. The model copolymer P-Acap-Lys had a weight average molecular weight of about 18,000 and contained four to five Lys residues per copolymer molecule. The extent of photocrosslinking, as sensitized by rose bengal, was estimated by measuring the increase in the viscosity of model copolymer solution after various periods of illumination. The extent of intermolecular crosslinking was estimated from the changes in molecular weight distribution of samples before and at the end of illumination as determined by size exclusion chromatography. Photodynamic crosslinking occurred between P-Acap-His molecules and between P-Acap-His and P-Acap-Lys molecules. The higher the concentration of macromolecules in the solution, the higher is the yield of intermolecular crosslinking. Oxygen was necessary for crosslinking, and azide inhibition studies indicated the involvement of singlet oxygen.

L9 ANSWER 4 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1996066448 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7472801
TITLE: Visible light induced changes in the immune response through an eye-brain mechanism (photoneuroimmunology).
AUTHOR: Roberts J E
CORPORATE SOURCE: Fordham University, New York, NY 10023, USA.
SOURCE: Journal of photochemistry and photobiology. B, Biology, (1995 Jul) Vol. 29, No. 1, pp. 3-15. Ref: 86
Journal code: 8804966. ISSN: 1011-1344. L-ISSN: 1011-1344.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199511
ENTRY DATE: Entered STN: 24 Jan 1996
Last Updated on STN: 24 Jan 1996
Entered Medline: 30 Nov 1995

AB The immune system is susceptible to a variety of stresses. Recent work in neuroimmunology has begun to define how mood alteration, stress, the seasons, and daily rhythms can have a profound effect on immune response through hormonal modifications. Central to these factors may be light through an eye-brain hormonal modulation. In adult primates, only visible light (400-700 nm) is received by the retina. This photic energy is then transduced and delivered to the visual cortex and by an alternative pathway to the suprachiasmatic nucleus (SCN). The SCN is a part of the

hypothalamic region in the brain believed to direct circadian rhythm. Visible light exposure also modulates the pituitary and pineal gland which leads to neuroendocrine changes. Melatonin, norepinephrine and acetylcholine decrease with light activation, while cortisol, serotonin, gaba and dopamine levels increase. The synthesis of vasoactive intestinal polypeptide (VIP), gastrin releasing peptide (GRP) and neuropeptide Y (NPY) in rat SCN has been shown to be modified by light. These induced neuroendocrine changes can lead to alterations in mood and circadian rhythm. All of these neuroendocrine changes can lead to immune modulation. An alternative pathway for immune modulation by light is through the skin. Visible light (400-700 nm) can penetrate epidermal and dermal layers of the skin and may directly interact with circulating lymphocytes to modulate immune function. However, even in the presence of phototoxic agents such as eosin and rose bengal, visible light did not produce suppression of contact hypersensitivity with suppresser cells. In contrast to visible light, in vivo exposure to UV-B (280-320 nm) and UV-A (320-400 nm) radiation can only alter normal human immune function by a skin mediated response. Each UV subgroup (B, A) induces an immunosuppressive response but by differing mechanisms involving the regulation of differing interleukins and growth factors. Some effects observed in humans are: inhibition of allergic contact dermatitis; inhibition of delayed hypersensitivity to an injected antigen; prolongation of skin-graft survival and induction of a tumor-susceptible state. The following article will review much of the progress in this field and explore possible areas of future research.

L9 ANSWER 5 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1995210654 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7696627
TITLE: Photochemical brain injury in rats triggers DNA fragmentation, p53 and HSP72.
AUTHOR: Manev H; Kharlamov A; Armstrong D M
CORPORATE SOURCE: Allegheny-Singer Research Institute, Medical College of Pennsylvania, Pittsburgh 15212.
SOURCE: Neuroreport, (1994 Dec 20) Vol. 5, No. 18, pp. 2661-4.
Journal code: 9100935. ISSN: 0959-4965. L-ISSN: 0959-4965.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199505
ENTRY DATE: Entered STN: 10 May 1995
Last Updated on STN: 10 May 1995
Entered Medline: 4 May 1995

AB The aim of the study was to examine whether apoptosis, apoptosis-related protein p53 and heat-shock protein (HSP) 72 participate in the response of the brain to focal injury. Male Sprague-Dawley rats received intravenously a photosensitive dye rose bengal. Unilateral cortical thrombosis was induced by illuminating the skull of rose bengal-treated rats for 10 min with a focused beam of light. Animals were killed and brains were processed for immunohistochemical detection of DNA fragmentation, p53, and HSP72 kD. DNA fragmentation and p53 were increased only in the perifocal area in the cortex ipsilateral to the thrombotic focus, while HSP72 increased throughout the ipsilateral cortex, except in the immediate perifocal area. The results suggest that in response to focal brain injury, some cells die through an apoptotic process that might involve an accumulation of p53.

L9 ANSWER 6 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1994163635 MEDLINE

DOCUMENT NUMBER: PubMed ID: 8118827
TITLE: Photodynamic therapy mediated induction of early response genes.
AUTHOR: Luna M C; Wong S; Gomer C J
CORPORATE SOURCE: Clayton Ocular Oncology Center, Childrens Hospital Los Angeles, California 90027.
CONTRACT NUMBER: R01-CA-52997 (United States NCI NIH HHS)
R37-CA-31230 (United States NCI NIH HHS)
SOURCE: Cancer research, (1994 Mar 1) Vol. 54, No. 5, pp. 1374-80.
Journal code: 2984705R. ISSN: 0008-5472. L-ISSN: 0008-5472.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, NON-P.H.S.)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199404
ENTRY DATE: Entered STN: 12 Apr 1994
Last Updated on STN: 3 Feb 1997
Entered Medline: 7 Apr 1994

AB Photodynamic therapy (PDT) generates reactive oxygen species which initiate the cytotoxic events of this tumor treatment. We demonstrate that PDT mediated oxidative stress induced a transient increase in the early response genes c-fos, c-jun, c-myc, and egr-1 in murine radiation-induced fibrosarcoma cells. Incubation of exponentially growing cells with porphyrin based photosensitizers in the dark also induced an increase in mRNA levels of early response genes. However, the xanthine photosensitizer, rose bengal, produced increased c-fos mRNA levels only following light treatment. Nuclear runoff experiments confirmed that the induction of c-fos mRNA is controlled in part at the level of transcription. Likewise, a chloramphenicol acetyltransferase reporter construct containing the major c-fos transcriptional response elements was inducible by porphyrin and PDT. Signal transduction pathways associated with PDT mediated c-fos activation were examined by treating cells with protein kinase inhibitors. Staurosporine and 1-(5-isoquinolinesulfonyl)-2-methylpiperazine inhibited PDT mediated c-fos activation while N-(2-guanidinoethyl)-5-isoquinoline-sulfonamide had no effect. In addition, quinacrine, which can inhibit phospholipase activity, blocked PDT induced c-fos mRNA expression. These results suggest that photosensitizer mediated oxidative stress acts through protein kinase-mediated signal transduction pathway(s) to activate early response genes.

L9 ANSWER 7 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1991274055 MEDLINE
DOCUMENT NUMBER: PubMed ID: 1647184
TITLE: 131I-rose bengal therapy in hepatoblastoma patients.
AUTHOR: de Kraker J; Hoefnagel C A; Voute P A
CORPORATE SOURCE: Werkgroep Kindertumoren, Emma Kinderziekenhuis/het kinder AMC, Amsterdam, The Netherlands.
SOURCE: European journal of cancer (Oxford, England : 1990), (1991) Vol. 27, No. 5, pp. 613-5.
Journal code: 9005373. ISSN: 0959-8049. L-ISSN: 0959-8049.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 199108
ENTRY DATE: Entered STN: 18 Aug 1991
Last Updated on STN: 6 Feb 1998
Entered Medline: 1 Aug 1991

AB If conventional treatment modalities have failed in hepatoblastoma patients and no distant metastases can be demonstrated therapy with radionuclide agents can be considered. In 6 patients diagnostic technetium-99m (99mTc)-disofenin and two iodine-131 (131I)-rose bengal scans were made. 2 patients demonstrated specific uptake of disofenin. One of these had a positive scintigram with radiolabelled rose bengal. This patient was subsequently treated with 1.1 GBq 131I-rose bengal. No toxicity was observed. A clear decrease in the level of alpha-fetoprotein indicated a response and demonstrated that this radiopharmaceutical can be used for tumour targeted radiation therapy in selected patients with therapy resistant tumours.

L9 ANSWER 8 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1991202294 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2150860
TITLE: Primary effects of singlet oxygen sensitizers on eggs and embryos of sea urchins.
AUTHOR: Marthy H J; Murasecco-Suardi P; Oliveros E; Braun A M
CORPORATE SOURCE: Laboratoire Arago (Unite associee au CNRS 117), Universite P. et M. Curie, Banyuls-sur-Mer, France.
SOURCE: Journal of photochemistry and photobiology. B, Biology, (1990 Nov) Vol. 7, No. 2-4, pp. 303-15.
Journal code: 8804966. ISSN: 1011-1344. L-ISSN: 1011-1344.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199105
ENTRY DATE: Entered STN: 7 Jun 1991
Last Updated on STN: 3 Feb 1997
Entered Medline: 22 May 1991

AB Photodynamic effects of rose bengal, a well-known singlet oxygen sensitizer, and of haematoporphyrin derivative, the most widely used sensitizer in photodynamic therapy of tumours, could be visualized using sea urchin eggs and embryos. This biological material is a valuable model for the analysis of mechanisms and/or sites of the photodynamic action occurring in any living tissue. Depending on the sensitizer used, singlet oxygen may be identified as the main mediator of the cytotoxic effects observed. Besides observations made on the living, in particular within the context of fertilization ability of the egg cell, gross damages of the cells are morphologically analysed by scanning electron microscopy. The results support the working hypothesis explaining the different susceptibility of healthy and tumour cells for photosensitization as a cell cycle phenomenon.

L9 ANSWER 9 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1990079671 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2512380
TITLE: Partition of rose bengal anion from aqueous medium into a lipophilic environment in the cell envelope of Salmonella typhimurium: implications for cell-type targeting in photodynamic therapy.
AUTHOR: Dahl T A; Valdes-Aguilera O; Midden W R; Neckers D C
CORPORATE SOURCE: Center for Photochemical Sciences, Bowling Green State University, OH 43403.
CONTRACT NUMBER: R01 CA 39715 (United States NCI NIH HHS)

SOURCE: Journal of photochemistry and photobiology. B, Biology, (1989 Nov) Vol. 4, No. 2, pp. 171-84.
Journal code: 8804966. ISSN: 1011-1344. L-ISSN: 1011-1344.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199001
ENTRY DATE: Entered STN: 28 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 17 Jan 1990

AB Photodynamic therapy employs photosensitizers for the selective destruction of tumor tissue while sparing the surrounding healthy tissue. Photosensitization may also be applied to the selective eradication of microorganisms. Photosensitized inactivation requires that the sensitizer bind to the target and therefore the factors that determine photosensitizer binding are critical to photosensitization selectivity. This paper reports the determination of some features of the binding site of the potent photosensitizer, Rose Bengal, in Salmonella bacteria and describes some of the factors that affect this binding. The shift in the wavelength of maximum fluorescence and experiments with the fluorescence quencher TNBS indicate that Rose Bengal is located in a non-aqueous compartment such as the outer membrane. The dye does not seem to significantly accumulate inside the cell, but rather to accumulate in the outer membrane. Time-dependent changes in sensitizer localization in two strains of Salmonella typhimurium that differ in cell wall formation, LT-2 and TA1975, correspond to their differences in susceptibility to photosensitized killing. Therefore these results provide clues to the factors that determine photosensitization selectivity. Understanding this phenomenon is essential for the efficient design of selective photosensitizers and for optimizing antitumor and antiviral photodynamic therapy.

L9 ANSWER 10 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1987172154 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3561208
TITLE: [Radionuclide research on liver and kidney function in thyroid cancer after radioiodine therapy]. Radionuklidnye issledovaniia funktsii pecheni i pochek pri rake shchitovidnoi zhelezy posle radioiodoterapii.
AUTHOR: Vasil'ev L Ia; Rozdil'skii S I; Tkachenko G I
SOURCE: Meditsinskaia radiologiia, (1987 Mar) Vol. 32, No. 3, pp. 38-41.
Journal code: 2984767R. ISSN: 0025-8334. L-ISSN: 0025-8334.
PUB. COUNTRY: USSR
DOCUMENT TYPE: (COMPARATIVE STUDY)
(ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198705
ENTRY DATE: Entered STN: 3 Mar 1990
Last Updated on STN: 3 Mar 1990
Entered Medline: 1 May 1987

AB A study was made of liver and renal function using radionuclide methods in 51 thyroid cancer patients on radio-iodine therapy. Multimodality examination of the patients revealed no clinical manifestations of hepatocellular and renal failure even in significant therapeutic activities up to 40 GBq and more. Hepatography and renography showed a decrease in absorptive and secretory hepatocytic function, an increase in the period of hippuran half-life and a decrease in total renal

function. The revealed changes were of moderate nature, stable and related both to hypothyrosis and a radiation factor.

L9 ANSWER 11 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1984038769 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6633198
TITLE: [Scintigraphy of the liver with 131-I-bengal rose and determination of ferritin in the blood during combined radiotherapy of cancer of the cervix]. Stsintigrafiia pecheni s 131-I-bengal'skim rozovym i opredelenie ferritina v krovi pri sochetanno-luchevom lechenii raka sheiki matki.
AUTHOR: Modnikov O P
SOURCE: Meditsinskaia radiologiia, (1983 Oct) Vol. 28, No. 10, pp. 66-7.
Journal code: 2984767R. ISSN: 0025-8334. L-ISSN: 0025-8334.
PUB. COUNTRY: USSR
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198312
ENTRY DATE: Entered STN: 19 Mar 1990
Last Updated on STN: 19 Mar 1990
Entered Medline: 17 Dec 1983
AB Altogether 117 patients with cervical cancer on combined radiation therapy were examined. They were examined before the start of radiation therapy, after a focal dose of 35-40 Gy, immediately after the termination of irradiation and in 3-12 mos. after treatment. Using a method of dynamic computerized scintigraphy with 131I-Bengal rose absorptive-excretory function of the liver was studied; the level of ferritin was determined too. Combined radiation therapy was shown to cause hepatic disorders that manifest themselves in the suppression of absorptive-excretory function of the liver and a decreased level of ferritin. The most noticeable changes were recorded in the patients examined immediately after the termination of irradiation. Results of both methods show good correlation.

L9 ANSWER 12 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1983261930 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6307698
TITLE: Specific diagnosis of hepatoma using 99mTc-HIDA and other radionuclides.
AUTHOR: Lee V W; Shapiro J H
SOURCE: European journal of nuclear medicine, (1983) Vol. 8, No. 5, pp. 191-5.
Journal code: 7606882. ISSN: 0340-6997. L-ISSN: 0340-6997.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198309
ENTRY DATE: Entered STN: 19 Mar 1990
Last Updated on STN: 6 Feb 1998
Entered Medline: 23 Sep 1983
AB The difficulty of clinical and radiographical diagnosis of hepatoma is discussed. A case of hepatoma is reported. Both the primary tumor and distant metastases showed strong avidity for 99mTc-HIDA, which normally is concentrated by parenchymal cells of the liver. The potential of using 99mTc-HIDA for the noninvasive investigation of patients suspected of having hepatoma is discussed. The association

between tumor avidity for 99mTc-HIDA and the bile-forming ability of tumor cells is of interest.

L9 ANSWER 13 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1977170232 MEDLINE
DOCUMENT NUMBER: PubMed ID: 323631
TITLE: [Absorptive and excretory function of the liver in intensive preoperative irradiation of stomach cancer patients]. Poglotitel'no-vydelitel'naia funktsiia pecheni pri intensivnom predoperatsionnom obluchenii bol'nykh rakom zheludka.
AUTHOR: Ikonnikov A I; Gabuniia R I; Berdov B A; Senokosov N I
SOURCE: Meditsinskaia radiologiia, (1977 Feb) Vol. 22, No. 2, pp. 56-60.
Journal code: 2984767R. ISSN: 0025-8334. L-ISSN: 0025-8334.
PUB. COUNTRY: USSR
DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197706
ENTRY DATE: Entered STN: 13 Mar 1990
Last Updated on STN: 13 Mar 1990
Entered Medline: 30 Jun 1977

L9 ANSWER 14 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1976122020 MEDLINE
DOCUMENT NUMBER: PubMed ID: 942995
TITLE: Residual splenic function in the presence of thorotrast-associated hepatic tumor: case report.
AUTHOR: Spencer R P; Turner J W; Syed I B
SOURCE: Journal of nuclear medicine : official publication, Society of Nuclear Medicine, (1976 Mar) Vol. 17, No. 3, pp. 200-2.
Journal code: 0217410. ISSN: 0161-5505. L-ISSN: 0161-5505.
PUB. COUNTRY: United States
DOCUMENT TYPE: (CASE REPORTS)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197604
ENTRY DATE: Entered STN: 13 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 19 Apr 1976

AB A 50-year-old man had received intravenous colloidal thorium dioxide (thorotrast) 27 years previously. Scintiscans with both 99mTc-sulfur colloid and 131I-rose bengal revealed an extensive infrahepatic defect. At operation, the lesion proved to be an infiltrating hemangiosarcoma. The spleen was small but the chronic internal radiation of the spleen had not completely destroyed the function of radiocolloid uptake. Review of the literature disclosed other cases in which the spleen was still capable of accumulating radiocolloid some years after thorotrast administration. In at least one other instance, radiocolloid uptake was not accompanied by splenic ability to clear Howell-Jolly bodies: a disassociation of splenic functions. The effects of the internal radiation dose to the spleen from thorotrast are discussed and compared with the effects of external radiation. The discrepancy between the effects of the two doses may be related to the high relative biologic effectiveness of the alpha rays from thorotrast compared with gamma-radiation, to nonuniformity of distribution, and to the effects of reticuloendothelial

blockade.

L9 ANSWER 15 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1975208327 MEDLINE
DOCUMENT NUMBER: PubMed ID: 168032
TITLE: Multinuclide evaluation of hepatic mass lesions.
AUTHOR: Koenigsberg M; Freeman L M
SOURCE: CRC critical reviews in clinical radiology and nuclear medicine, (1975 Apr) Vol. 6, No. 2, pp. 113-52. Ref: 139
Journal code: 0372257. ISSN: 0091-6536. L-ISSN: 0091-6536.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197511
ENTRY DATE: Entered STN: 10 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 5 Nov 1975

AB Radionuclide imaging with labeled colloids is widely used to evaluate and localize primary and metastatic tumors of the liver. The method is fairly sensitive, but the nonspecificity of focal defects remains a significant limitation. Lesions such as cysts and abscesses appear as space occupying areas that are indistinguishable from neoplastic masses. Utilizing a variety of radiopharmaceuticals, one may obtain additional information concerning such lesions. Hepatic blood flow scintiphotography is performed with the Anger camera following the intravenous injection of a high activity, small volume bolus of 99m-Tc pertechnetate. Vascular lesions such as hepatomas or hemangiomas will show increased activity in the lesion which should easily differentiate them from avascular processes such as abscesses, cirrhotic pseudomasses and most metastatic lesions, all of which remain "cold" on these flow studies. If one does not posses a camera, useful blood pool rectilinear scans of these lesions may be obtained with 131-I or 99m-Tc human serum albumin or ionic 113m-In. Additional information concerning the metabolic activity of focal defects on the colloid study is obtained using 75-Se-selenomethionine or 67-Ga. The former is an indicator of active protein metabolism while the latter attaches to lysozymes of metabolically active cells. With either agent, hepatomas show avid uptake, metastatic lesions show variable uptake, and cysts or chronic pseudotumors of cirrhosis show poor uptake. The two agents differ in abscess detection where 75-Se-selenomethionine uptake is poor while 67-Ga concentration generally is intense. 131-I-Rose Bengal occasionally may prove useful in demonstrating impression by an atypically positioned gallbladder or focal dilatation of the biliary tract as a cause of a defect on the colloid scan. Ultrasound examination may complement the radionuclide studies. It is useful for corroborating the presence of lesions and for evaluating their consistency (cystic vs. solid). The information obtained from this multinuclide approach has made scintigraphy examination of the livermore specific. After the completion of this non-invasive series of studies, one generally may venture an intelligent opinion concerning the etiology of the space occupying disease.

L9 ANSWER 16 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1969234439 MEDLINE
DOCUMENT NUMBER: PubMed ID: 5794051
TITLE: Hepatic gammascanning. An aid in determining treatment policies for cancer involving the liver.
AUTHOR: Ariel I M; Molander D
SOURCE: American journal of surgery, (1969 Jul) Vol. 118, No. 1, pp. 5-14.

Journal code: 0370473. ISSN: 0002-9610. L-ISSN: 0002-9610.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 196908
ENTRY DATE: Entered STN: 1 Jan 1990
Last Updated on STN: 1 Jan 1990
Entered Medline: 30 Aug 1969

L9 ANSWER 17 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1968318550 MEDLINE
DOCUMENT NUMBER: PubMed ID: 5660127
TITLE: [The effect of autoantibodies on the function of organs and the growth of malignant tumors].
Vliianie autoantitel na funktsiiu organov i rost zlokachestvennykh opukholei.
AUTHOR: Nikolaev A I; Burshtein Ch I; Muratkhodzhaev N K; Makarov G F
SOURCE: Biulleten' eksperimental'noi biologii i meditsiny, (1968 Jan) Vol. 65, No. 1, pp. 94-6.
Journal code: 0370627. ISSN: 0365-9615. L-ISSN: 0365-9615.
PUB. COUNTRY: USSR
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 196808
ENTRY DATE: Entered STN: 1 Jan 1990
Last Updated on STN: 1 Jan 1990
Entered Medline: 27 Aug 1968

L9 ANSWER 18 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1967169891 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6067465
TITLE: Response and recovery of liver to radiation as demonstrated by photoscans.
AUTHOR: Kurohara S S; Swensson N L; Usselman J A; George F W 3rd
SOURCE: Radiology, (1967 Jul) Vol. 89, No. 1, pp. 129-35.
Journal code: 0401260. ISSN: 0033-8419. L-ISSN: 0033-8419.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 196708
ENTRY DATE: Entered STN: 1 Jan 1990
Last Updated on STN: 1 Jan 1990
Entered Medline: 8 Aug 1967

L9 ANSWER 19 OF 92 MEDLINE on STN
ACCESSION NUMBER: 1967138204 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6024291
TITLE: Treatment of inoperable cancer of the liver by intra-arterial radioactive isotopes and chemotherapy.
AUTHOR: Ariel I M; Pack G T
SOURCE: Cancer, (1967 May) Vol. 20, No. 5, pp. 793-804.
Journal code: 0374236. ISSN: 0008-543X. L-ISSN: 0008-543X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 196707
ENTRY DATE: Entered STN: 1 Jan 1990

Last Updated on STN: 1 Jan 1990
Entered Medline: 1 Jul 1967

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ACCESSION NUMBER: 1997081707 EMBASE
TITLE: Comparative studies on the tolerance to photoinduced cutaneous inflammatory reactions by psoralen and rose bengal.
AUTHOR: Kumar, Janak R.; Haberman, Herbert F.
CORPORATE SOURCE: Department of Medicine, University of Toronto, Toronto, Ont. M5S 1A8, Canada.
AUTHOR: Haberman, Herbert F.
CORPORATE SOURCE: Department of Ophthalmology, University of Toronto, Toronto, Ont. M5S 1A8, Canada.
AUTHOR: Ranadive, Narendranath S. (correspondence)
CORPORATE SOURCE: Department of Pathology, University of Toronto, Toronto, Ont. M5S 1A8, Canada.
SOURCE: Journal of Photochemistry and Photobiology B: Biology, (Feb 1997) Vol. 37, No. 3, pp. 245-253.
Refs: 29
ISSN: 1011-1344 CODEN: JPPBEG
PUBLISHER IDENT.: S 1011-1344(96)07406-4
COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 013 Dermatology and Venereology
030 Clinical and Experimental Pharmacology
037 Drug Literature Index
052 Toxicology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 7 Apr 1997
Last Updated on STN: 7 Apr 1997

AB The photochemotherapeutic value of topical 8-methoxypsoralen (8-MOP) plus UVA irradiation has been well recognized. The phototoxicity associated with psoralen plus UVA (PUVA) therapy is hallmarked by an increase in vascular permeability (iVP), the accumulation of polymorphonuclear leukocytes (aPMN) and erythema formation in situ. Rose bengal (RE) plus UVA-VIS light (320-700 nm) produces a similar acute inflammatory response, but without immediate or delayed erythema and perceptible edema. This study describes some of the parameters involved in inflammatory reactions evoked by PUVA and the results are compared with RB-induced phototoxic reactions. The rates of iVP and aPMN with a 3 h pulse were quantified using 125I-albumin and 51Cr-labelled PMNs respectively. The erythemal response was graded visually, 8-MOP cream was applied topically, while RB was injected intradermally in rabbit skin before UVA-VIS (9.4 J cm-2) irradiation. The data show that there is no significant difference in the rates of iVP, aPMN and erythema formation between normal skin sites and mast cell-depleted skin sites when challenged with 8-MOP plus light. These results suggest that in situ mast cells do not play a significant role in 8-MOP-photoinduced acute cutaneous inflammatory reactions, in contrast with RB-photoinduced reactions. The iVP and aPMN responses are minimal or absent in sites subjected to repeated exposure to 8-MOP plus light for three or more consecutive days, suggesting the establishment of a desensitized/unresponsive state. Moreover, 8-MOP-photo-desensitized sites do not produce iVP and aPMN of the same magnitude as the normal (naive) skin sites when challenged with RB plus light. Similarly, RB-photo-desensitized sites do not produce iVP and aPMN of the same magnitude as the native skin sites when challenged with 8-MOP plus light. The desensitization and cross-desensitization of skin sites to 8-MOP- or RB-photoinduced reactions suggest that there is either direct attack on the target cell(s), thereby removing the ability

to express adhesion molecules, such as endothelial leukocyte adhesion molecule 1 (ELAM-1) or intercellular adhesion molecule 1 (ICAM-1), involved in the accumulation of inflammatory cells, or downregulation of the secretion/release of putative agent(s), such as interleukin 1 (IL-1) and tumor necrosis factor α (TNF-α), responsible for the initiation and progression of cutaneous inflammations.

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ACCESSION NUMBER: 1995340865 EMBASE
TITLE: Pyogenic granulomas of the cornea.
AUTHOR: Cameron, J.A., Dr. (correspondence); Mahmood, M.A.
CORPORATE SOURCE: c/o Medical Library, King Khaled Eye Specialist Hospital, PO Box 7191, Riyadh 11462, Saudi Arabia.
SOURCE: Ophthalmology, (1995) Vol. 102, No. 11, pp. 1681-1687.
ISSN: 0161-6420 CODEN: OPHTDG
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 012 Ophthalmology
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 5 Dec 1995
Last Updated on STN: 5 Dec 1995

AB Background: Pyogenic granulomas are vascular inflammatory lesions that represent an aberrant wound healing response. They typically arise from mucous membranes or skin. Pyogenic granulomas primarily involving the cornea have been rarely reported. Methods: Between January 1983 and July 1994, 14 patients with histologically proven pyogenic granulomas of the cornea were treated. Results: The precipitating event was a persistent epithelial defect in nine patients. Ocular surface disease was present in all patients. Predisposing conditions included indolent corneal ulceration, dry eye syndrome, trachoma, trichiasis, alkali burn, multiple topical drug use, previous orbital irradiation, and ocular cicatricial pemphigoid. Conclusions: Ophthalmologists should be aware that pyogenic granulomas may involve the cornea and include this entity in the differential diagnosis of tumors involving the limbus or cornea. The typical clinical appearance, rapid growth, minimal staining with rose bengal dye, response to topical steroids, and associated ocular surface disease help to distinguish this lesion from a neoplastic epithelial tumor of the conjunctiva or cornea.

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ACCESSION NUMBER: 1995280833 EMBASE
TITLE: Visible light induced changes in the immune response through an eye-brain mechanism (photoneuroimmunology).
AUTHOR: Roberts, J.E. (correspondence)
CORPORATE SOURCE: Fordham University, 113 West 60th Street, New York, NY 10023, United States.
SOURCE: Journal of Photochemistry and Photobiology B: Biology, (1995) Vol. 29, No. 1, pp. 3-15.
ISSN: 1011-1344 CODEN: JPPBEG
COUNTRY: Switzerland
DOCUMENT TYPE: Journal; General Review; (Review)
FILE SEGMENT: 012 Ophthalmology
002 Physiology
026 Immunology, Serology and Transplantation
008 Neurology and Neurosurgery
LANGUAGE: English

SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 3 Oct 1995
Last Updated on STN: 3 Oct 1995

AB The immune system is susceptible to a variety of stresses. Recent work in neuroimmunology has begun to define how mood alteration, stress, the seasons, and daily rhythms can have a profound effect on immune response through hormonal modifications. Central to these factors may be light through an eye-brain hormonal modulation. In adult primates, only visible light (400-700 nm) is received by the retina. This photic energy is then transduced and delivered to the visual cortex and by an alternative pathway to the suprachiasmatic nucleus (SCN). The SCN is a part of the hypothalamic region in the brain believed to direct circadian rhythm. Visible light exposure also modulates the pituitary and pineal gland which leads to neuroendocrine changes. Melatonin, norepinephrine and acetylcholine decrease with light activation, while cortisol, serotonin, gaba and dopamine levels increase. The synthesis of vasoactive intestinal polypeptide (VIP), gastrin releasing peptide (GRP) and neuropeptide Y (NPY) in rat SCN has been shown to be modified by light. These induced neuroendocrine changes can lead to alterations in mood and circadian rhythm. All of these neuroendocrine changes can lead to immune modulation. An alternative pathway for immune modulation by light is through the skin. Visible light (400-700 nm) can penetrate epidermal and dermal layers of the skin and may directly interact with circulating lymphocytes to modulate immune function. However, even in the presence of phototoxic agents such as eosin and rose bengal, visible light did not produce suppression of contact hypersensitivity with suppresser cells. In contrast to visible light, in vivo exposure to UV-B (280-320 nm) and UV-A (320-400 nm) radiation can only alter normal human immune function by a skin mediated response. Each UV subgroup (B, A) induces an immunosuppressive response but by differing mechanisms involving the regulation of differing interleukins and growth factors. Some effects observed in humans are: inhibition of allergic contact dermatitis; inhibition of delayed hypersensitivity to an injected antigen; prolongation of skin-graft survival and induction of a tumor-susceptible state. The following article will review much of the progress in this field and explore possible areas of future research.

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ACCESSION NUMBER: 1994102040 EMBASE
TITLE: Photodynamic therapy mediated induction of early response genes.
AUTHOR: Luna, Marian C.; Wong, Sam; Corner, Charles J.
CORPORATE SOURCE: Clayton Ocular Oncology Center, Childrens Hospital Los Angeles, Los Angeles, CA 90027, United States.
AUTHOR: Corner, Charles J.
CORPORATE SOURCE: Department of Pediatrics, University of Southern California, Los Angeles, CA 90027, United States.
AUTHOR: Corner, Charles J.
CORPORATE SOURCE: Department of Radiation Oncology, University of Southern California, Los Angeles, CA 90027, United States.
AUTHOR: Corner, Charles J.
CORPORATE SOURCE: Dept. Molec. Pharmacol. and Toxicol., University of Southern California, Los Angeles, CA 90027, United States.
AUTHOR: Corner, Charles J.
CORPORATE SOURCE: Clayton Ocular Oncology Center, Childrens Hospital Los Angeles, Mail Stop 67, 4650 Sunset Boulevard, Los Angeles, CA 90027, United States.
AUTHOR: Gomer, C.J. (correspondence)
CORPORATE SOURCE: Clayton Ocular Oncology Center, Childrens Hospital Los Angeles, Mail Stop 67, 4650 Sunset Boulevard, Los Angeles,

CA 90027, United States.
SOURCE: Cancer Research, (1 Mar 1994) Vol. 54, No. 5, pp. 1374-1380.
Refs: 49
ISSN: 0008-5472 CODEN: CNREA8
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
022 Human Genetics
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 4 May 1994
Last Updated on STN: 4 May 1994

AB Photodynamic therapy (PDT) generates reactive oxygen species which initiate the cytotoxic events of this tumor treatment. We demonstrate that PDT mediated oxidative stress induced a transient increase in the early response genes c-fos, c-jun, c-myc, and egr-1 in murine radiation-induced fibrosarcoma cells. Incubation of exponentially growing cells with porphyrin based photosensitizers in the dark also induced an increase in mRNA levels of early response genes. However, the xanthine photosensitizer, rose bengal, produced increased c-fos mRNA levels only following light treatment. Nuclear runoff experiments confirmed that the induction of c-fos mRNA is controlled in part at the level of transcription. Likewise, a chloramphenicol acetyltransferase reporter construct containing the major c-fos transcriptional response elements was inducible by porphyrin and PDT. Signal transduction pathways associated with PDT mediated c-fos activation were examined by treating cells with protein kinase inhibitors. Staurosporine and 1-(5-isoquinolinesulfonyl)-2-methylpiperazine inhibited PDT mediated c-fos activation while N-(2-guanidinoethyl)-5-isoquinoline-sulfonamide had no effect. In addition, quinacrine, which can inhibit phospholipase activity, blocked PDT induced c-fos mRNA expression. These results suggest that photosensitizer mediated oxidative stress acts through protein kinase-mediated signal transduction pathway(s) to activate early response genes.

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ACCESSION NUMBER: 1993315052 EMBASE
TITLE: Functional aspects of secondary carotenoids in Haematococcus lacustris [Girod] Rostafinski (Volvocales) IV. Protection from photodynamic damage.
AUTHOR: Hagen, C.; Braune, W. (correspondence); Greulich, F.
CORPORATE SOURCE: Institute of General Botany, Friedrich Schiller University Jena, von-Hase-Weg 3, 07743 Jena, Germany.
SOURCE: Journal of Photochemistry and Photobiology B: Biology, (1993) Vol. 20, No. 2-3, pp. 153-160.
ISSN: 1011-1344 CODEN: JPPBEG
COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 037 Drug Literature Index
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 5 Dec 1993
Last Updated on STN: 5 Dec 1993

AB The function as an antioxidant seems to represent the central principle of chemopreventive activity of carotenoids against cancer initiation and promotion. The aim of this study was to clarify whether or not extrachloroplastic-accumulated secondary carotenoids (astaxanthin,

canthaxanthin and echinenone) of Haematococcus lacustris [Girod] Rostafinski exhibit a similar antioxidative activity in protecting the cell of this green alga from photo-oxidative damage. In vivo experiments were performed, investigating the effect of UV radiation, artificial photosensitizers (rose bengal, toluidine blue) and copper-mediated lipid peroxidation on suspensions of flagellates which contained different amounts of secondary carotenoids. The results revealed a higher resistance of red flagellates to photo- oxidative stress. The findings are discussed with respect to the shading function of secondary carotenoids and known protective mechanisms involving quenching of reactive oxygen species and radical reactions in plant cells. A hypothesis for this functional aspect of secondary carotenoids in H. lacustris preventing injury by excessive insolation is suggested: ketocarotenoids, first accumulated in lipid vacuoles around the nucleus, might act as a physico chemical barrier, protecting particularly the genome from free radical-mediated damage.

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ACCESSION NUMBER: 1991163637 EMBASE
TITLE: 131I-rose bengal therapy in hepatoblastoma patients.
AUTHOR: De Kraker, J. (correspondence); Hoefnagel, C.A.; Voute, P.A.
CORPORATE SOURCE: Werkgroep Kindertumoren, Emma Kinderziekenhuis, Het Kinder AMC, Meibergdreef 9, 1105 AZ Amsterdam, Netherlands.
SOURCE: European Journal of Cancer, (1991) Vol. 27, No. 5, pp. 613-615.
ISSN: 0277-5379 CODEN: EJCAEL
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
023 Nuclear Medicine
037 Drug Literature Index
048 Gastroenterology
007 Pediatrics and Pediatric Surgery
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 16 Dec 1991
Last Updated on STN: 16 Dec 1991

AB If conventional treatment modalities have failed in hepatoblastoma patients and no distant metastases can be demonstrated therapy with radionuclide agents can be considered. In 6 patients diagnostic technetium-99m (99m)Tc)-disofenin and two iodine-131 (131I)-rose bengal scans were made. 2 patients demonstrated specific uptake of disofenin. One of these had a positive scintigram with radiolabelled rose bengal. This patient was subsequently treated with 1.1 GBq 131I-rose bengal. No toxicity was observed. A clear decrease in the level of alpha-fetoprotein indicated a response and demonstrated that this radiopharmaceutical can be used for tumour targeted radiation therapy in selected patients with therapy resistant tumours.

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ACCESSION NUMBER: 1981224197 EMBASE
TITLE: Imaging of irradiated liver with Tc-99m-sulfur colloid and Tc-99m-IDA.
AUTHOR: Gelfand, M.J.; Saha, S.; Aron, B.S.
CORPORATE SOURCE: E.L. Saenger Radioisot. Lab., Univ. Cincinnati, OH 45267, United States.
SOURCE: Clinical Nuclear Medicine, (1981) Vol. 6, No. 9,

pp. 399-402.
ISSN: 0363-9762 CODEN: CNMEDK
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 014 Radiology
016 Cancer
023 Nuclear Medicine
037 Drug Literature Index
048 Gastroenterology
006 Internal Medicine
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Dec 1991
Last Updated on STN: 9 Dec 1991

AB In three cases, irradiated regions of liver failed to concentrate Tc-99m-sulfur colloid. In two of these three, imaging with Tc-99m-acetanilide iminodiacetic acid (IDA) agents within five days showed near normal hepatic uptake of this hepatobiliary imaging agent. The hepatic parenchymal cells may be imaged with Tc-99m-IDA in some irradiated regions of liver, despite loss of reticuloendothelial cell function.

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ACCESSION NUMBER: 1981030293 EMBASE
TITLE: Relative biological effectiveness of cyclotron fast neutrons for late hepatic injury in rats.
AUTHOR: Geraci, J.P.; Jackson, K.L.; Thrower, P.D.; Mariano, M.S.
CORPORATE SOURCE: Div. Radiol. Sci., Sch. Pub. Hlth Commun. Med., Univ. Washington, Seattle, Wash. 98195, United States.
SOURCE: Radiation Research, (1980) Vol. 82, No. 3, pp. 570-578.
ISSN: 0033-7587 CODEN: RAREAE
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 014 Radiology
023 Nuclear Medicine
048 Gastroenterology
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Dec 1991
Last Updated on STN: 9 Dec 1991

AB Surgically exteriorized left anterior liver lobes were exposed to single graded doses of fast neutrons (0-2250 rad) or γ rays (0-9000 rad). A dose-dependent decrease in liver function, as measured by 131I-rosebengal uptake in the exposed liver, was observed 1 year after exposure. Fibrosis in the liver, as measured by hydroxyproline levels, increased 1 year after irradiation and was dose dependent. Using these two endpoints, a neutron RBE of 4 to 6 at a neutron dose of 950 rad was estimated and corroborated by histological examination of the irradiated liver. Thirteen of ninety-six animals developed neoplasms within 1 year after exposure. Eleven of the neoplasms occurred in the neutron-irradiated animals. The tumors were squamous cell carcinoma (five animals) or mammary adenocarcinoma (eight animals).

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ACCESSION NUMBER: 1980153446 EMBASE
TITLE: Relative biological effectiveness of cyclotron fast neutrons for late hepatic injury in rats.
AUTHOR: Geraci, J.P.; Jackson, K.L.; Thrower, P.D.; Mariano, M.S.
CORPORATE SOURCE: Div. Radiol. Sci., SB-30, Sch. Publ. Hlth Commun. Med., Univ. Washington, Seattle, Wash. 98195, United States.
SOURCE: Radiation Research, (1980) Vol. 81, No. 3, pp. 570-578.

ISSN: 0033-7587 CODEN: RAREAE
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 014 Radiology
023 Nuclear Medicine
048 Gastroenterology
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Dec 1991
Last Updated on STN: 9 Dec 1991

AB Surgically exteriorized left anterior liver lobes were exposed to single graded doses of fast neutrons (0-2250 rad) or γ rays (0-9000 rad). A dose-dependent decrease in liver function, as measured by 131I-rosebengal uptake in the exposed liver, was observed 1 year after exposure. Fibrosis in the liver, as measured by hydroxyproline levels, increased 1 year after irradiation and was dose dependent. Using these two endopoints, a neutron RBE of 4 to 6 at a neutron dose of 950 rad was estimated and corroborated by histological examination of the irradiated liver. Thirteen of ninety-six animals developed neoplasma within 1 year after exposure. Eleven of the neoplasms occurred in the neutron-irradiated animals. The tumors were squamous cell carcinoma (five animals) or mammary adenocarcinoma (eight animals).

L9 ANSWER 29 OF 92 EMBASE
ACCESSION NUMBER: 1978324163 EMBASE
TITLE: Visualization of the liver, biliary tree and pancreas. Part I: Radiology.
AUTHOR: Nunnerley, H.B.; Spencer, R.P.; Taylor, K.J.W.; Rosenfield, A.T.
CORPORATE SOURCE: King's Coll. Hosp., London, United Kingdom.
SOURCE: Clinics in Gastroenterology, (1978) Vol. 7, No. 2, pp. 453-516.
ISSN: 0300-5089 CODEN: CGSTA9
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 014 Radiology
016 Cancer
023 Nuclear Medicine
037 Drug Literature Index
048 Gastroenterology
009 Surgery
LANGUAGE: English

AB Useful information on the liver can be obtained by plain radiography. Angiography, however, visualizing the extent of the tumour yields some indication of the type of the tumour. Visualization of the biliary tree can be realized by direct puncture or retrograde cannulation of the common bile duct. Thus, the presence of an obstructed biliary system and the site and cause of this obstruction can be demonstrated. Lesions of the pancreas can be best identified by retrograde endoscopic cannulation of the pancreatic duct. Radionuclide Evaluation: Hepatic dynamic images are helpful in the evaluation of tumours, hepatic artery-portal vein fistulas and cirrhosis. Intravenous injection of radiocolloid yields static liver imaging. Scans are mostly applied for the detection of tumours, however, they are of importance in the diagnostics of benign processes as well. Biliary scanning is performed by labelled agents, e.g. 131J-rose bengal, excreted in bile. In pancreas diseases 75Se-selenomethionin, clearly visualizing the organ, is to be used. Ultrasound scanning: The major advantages of ultrasound are a total lack of invasion, lack of ionizing radiation and the ability to display soft tissues without the use of contrast media. In the diagnostics of liver, biliary system as well as pancreas diseases, the

ultrasound modality proved to be superior to isotope scanning in regard to resolution and specificity.

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ACCESSION NUMBER: 1977039027 EMBASE
TITLE: Residual splenic function in the presence of thorotrast associated hepatic tumor: case report.
AUTHOR: Spencer, R.P.; Turner, J.W.; Syed, I.B.
CORPORATE SOURCE: Univ. Connecticut Hlth Cent., Farmington, Conn., United States.
SOURCE: Journal of Nuclear Medicine, (1976) Vol. 17, No. 3, pp. 200-202.
ISSN: 0161-5505 CODEN: JNMEAQ
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
023 Nuclear Medicine
048 Gastroenterology
LANGUAGE: English

AB A 50 year old man had received intravenous colloidal thorium dioxide (thorotrast) 27 years previously. Scintiscans with both 99Tc(m) sulfur colloid and 131I rose bengal revealed an extensive intrahepatic defect. At operation, the lesion proved to be an infiltrating hemangiosarcoma. The spleen was small but the chronic internal radiation of the spleen had not completely destroyed the function of radiocolloid uptake. Review of the literature disclosed other cases in which the spleen was still capable of accumulating radiocolloid some years after the thorotrast administration. In at least one other instance, radiocolloid uptake was not accompanied by splenic ability to clear Howell Jolly bodies: a disassociation of splenic functions. The effects of the internal radiation dose to the spleen from thorotrast are discussed and compared with the effects of external radiation. The discrepancy between the effects of the two doses may be related to the high relative biologic effectiveness of the alpha rays from thorotrast compared with X radiation, to nonuniformity of distribution, and to the effects of reticuloendothelial blockade.

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ACCESSION NUMBER: 1975027302 EMBASE
TITLE: [Secondary cancer of the liver and treatment]. LES CANCERS SECONDAIRES DU FOIE ET LEUR TRAITEMENT.
AUTHOR: Chapuis, Y.
CORPORATE SOURCE: Clin. Chir., Hop. Cochin, Paris, France.
SOURCE: Revue du Praticien, (1974) Vol. 24, No. 33, pp. 2985-2997.
ISSN: 0035-2640 CODEN: REPRA3
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 016 Cancer
037 Drug Literature Index
048 Gastroenterology
005 General Pathology and Pathological Anatomy
LANGUAGE: French

AB Renewed interest in the semiology and prognosis of secondary liver cancer has developed in the last decade. As the process came to be better understood, the means of diagnosis considerably improved and attractive therapeutic methods attempted. Biological examinations provide only a guide, but isotope scanning and arteriography are reported to indicate the diagnosis of metastases in 9 cases out of 10. Metastases do not follow a set course: apart from rapidly growing forms, there are some

quiescent ones, at least temporarily. Surgical removal, radiotherapy and especially local chemotherapy and disarterialization each have their own indications. Though the survival rate is on the whole rather moderate, chemotherapy and disarterialization improve the condition in nearly 50% of diffuse forms. Localized forms should be removed surgically. The treatment of the primary tumor is a prerequisite to the treatment of metastases.

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ACCESSION NUMBER: 0048819739 EMBASE
TITLE: Hepatic gammascanning. an aid in determining treatment policies for cancer involving the liver.
AUTHOR: Ariel, I.M. (correspondence); Molander, D.
CORPORATE SOURCE: Pack Med. Found., New York, NY, United States.
SOURCE: AMERJSURG, (1969) Vol. 118, No. 1, pp. 77-84.
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Hepatic gammascanning has been found a most useful adjunct in determining treatment policies for patients with intra abdominal cancer. In a series of over 500 hepatic scans, the results of 196 were verified at either surgery or postmortem examination, and a diagnostic accuracy in determining the presence of metastases in the liver of 85.24 was obtained. False positive diagnoses were made in 9Ti of the patients and false negative diagnoses in 5.. The scan aided in determining the nature of hepatomegaly in 92 patients by demonstrating those portions of the liver replaced by cancer as well as those areas of compensatory hyperplasia. '1I rose bengal scans performed on patients with abnormal hepatic function tests demonstrating a normal appearing liver or diffuse patchy pickup are diagnosed as hepatitis rather than cancer. Forty eight patients of the series who were diagnosed as having primary parenchymal liver disease by presenting such a picture, subsequently improved by routine medical management, thus giving evidence of proper diagnosis. The hepatic scan provides information regarding the location of sites for introduction of the aspirating needle for biopsy, placement portals for purposes of external radiation therapy, and for the percutaneous administration of radioactive isotopes. The scans aid in the differentiation of an abdominal mass in juxtaposition to the liver from an intrinsic hepatic mass and thereby aid the physician to select the appropriate therapy. In 05 patients the hepatic scan aided in determining whether cancer chemotherapy was indicated. In the presence of severe damage of the parenchymal hepatic cells, extensive replacement of the liver by cancer, or in biliary obstruction with cirrhosis, radical cancer chemotherapy is considered to be contraindicated. Hepatic gammascanning served as an aid in following the course and plan of treatment of patients with lymphomas and hepatic cancer, in determining the blood flow to hepatic cancer, and in studying hepatic regeneration after lobectomy. The advantages and limitations of the gammascans, 131I rose bengal, and/or '8Au are discussed.

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ACCESSION NUMBER: 0048798589 EMBASE
TITLE: Hepatic gammascanning. An aid in determining treatment policies for cancer involving the liver.
AUTHOR: Ariel, I.M. (correspondence); Molander, D.
CORPORATE SOURCE: Pack Med. Found., New York, NY, United States.

SOURCE: AMER. J. SURG., (1969) Vol. 118, No. 1, pp. 5-14.
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Hepatic gammascanning has been found a most useful adjunct in determining treatment policies for patients with intra abdominal cancer. In a series of over 500 hepatic scans, the results of 196 were verified at either surgery or postmortem examination, and a diagnostic accuracy in determining the presence of metastases in the liver of 85.2% was obtained. False positive diagnoses were made in 9.7% of the patients and false negative diagnoses in 5.1% The scan aided in determining the nature of hepatomegaly in 92 patients by demonstrating those portions of the liver replaced by cancer as well as those areas of compensatory hyperplaaia. 111I rose bengal scans performed on patients with abnormal hepatic function tests demonstrating a normal appearing liver or diffuse patchy pickup are diagnosed as hepatitis rather than cancer. Forty eight patients of the series who were diagnosed as having primary parenchymal liver disease by presenting such a picture, subsequently improved by routine medical management, thus giving evidence of proper diagnosis. The hepatic scan provides information regarding the location of sites for introduction of the aspirating needle for biopsy, placement portals for purposes of external radiation therapy, and for the percutaneous administration of radioactive isotopes. The scans aid in the differentiation of an abdominal mass in juxtaposition to the liver from an intrinsic hepatic mass and thereby aid the physician to select the appropriate therapy. In 95 patients the hepatic scan aided in determining whether cancer chemotherapy was indicated. In the presence of severe damage of the parenchymal hepatic cells, extensive replacement of the liver by cancer, or in biliary obstruction with cirrhosis, radical cancer chemotherapy is considered to be contraindicated. Hepatic gammascanning served as an aid in following the course and plan of treatment of patients with lymphomas and hepatic cancer, in determining the blood flow to hepatic cancer, and in studying hepatic regeneration after lobectomy. The advantages and limitations of the gammascans, 131I rose bengal, and/or 196Au are discussed.

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ACCESSION NUMBER: 0048740666 EMBASE
TITLE: Visualization of the liver by scanning with Mo99 (molybdate) as tracer.
AUTHOR: Sorensen, L.B.; Archambault, M.
CORPORATE SOURCE: Argonne Cancer Res. Hosp., Univ. of Chicago, IL, United States.
SOURCE: Journal of Laboratory and Clinical Medicine, (1963) Vol. 62, No. 2, pp. 330-340.
ISSN: 0022-2143
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB A technique for scanning of the liver with radiomolybdate as tracer has been developed. The method is based on the demonstration that intravenously injected carrier-free Mo99 is selectively and efficiently concentrated in the polygonal cells of the liver. The 0.140 meV. gamma radiation of the daughter technetium-99m is particularly suitable

for scanning purposes. Good visualization is obtained when scans are done 24 hours alter injection of 40μc. of Mo99. Tumours, abscesses, and other space-occupying lesions are visible as defects. Decreased hepatic uptake of Mo99 is observed in diffuse hepatocellular diseases. This tracer has certain advantages over colloidal Au190 and I131-labelled rose bengal.

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ACCESSION NUMBER: 0048740574 EMBASE
TITLE: A comparison of the distribution of Au-198, I-131 rose bengal and Mo-99 in normal and abnormal liver tissue in rats.
AUTHOR: Knorpp, C.T. (correspondence); Cousineau, L.; Rennie, M.H.; Mannard, J.
CORPORATE SOURCE: Radioisot. Serv., Vet. Adm. Hosp., Ann Arbor, MI, United States.
SOURCE: Journal of Nuclear Medicine, (1963) Vol. 4, No. 3, pp. 188.
ISSN: 0161-5505
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB It has been determined by Dr. Leif Sorensen that Mo99 incorporated into the enzyme xanthine oxidase is concentrated in the liver in sufficient amounts to be detected by a scanner. Rats bearing palpable intra and extrahepatic Morris 5123 hepatomas were injected intravenously with colloidal Au198, I131 tagged rose bengal and carrier from Mo99. After a suitable period the rats were scanned with a photo scanner, sacrificed and their organs assayed for the concentration and distribution of the various isotopes. Scans of the rats with extrahepatic tumours showed no concentration of the Au198 or rose bengal while the molybdenum appeared to be localized in the tumour in the same concentration as in the liver. Radio assay of the organs confirmed this observation. Iu all cases the molybdenum concentration in the tumours and in normal liver tissue was at least 2 fold over that of the other organs assayed. The organs with metastasis from the hepatoma showed a high activity of Mo99. The greatest concentration of rose bengal was in normal liver, while Au198 showed decreasing concentration from liver to spleen to tumour. Au198 and I131 rose bengal are useful in liver scans but both isotopes are lacking in the ability to define small discrete space occupying lesions with present scanning equipment because of their high gamma energy. The relatively weak 0.14 mev gamma ray emitted by the Te99daughter of Mo99 is easily collimated to allow good resolution by the focusing collimators of the scintillation probes used today. Space occupying lesions or non-functioning liver tissue that may be overlooked because of the penetrating power of the gamma rays of Au198 and I131 should be more easily detected, as the normal liver beneath the suspected area should not mask the cold spots; it appears from scans and radio assay of the organs that Mo99 might be useful in the diagnosis of hepatoma.

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ACCESSION NUMBER: 0048575165 EMBASE
TITLE: [Isotope examinations of the liver].
Izotopova vysetreni jater.
AUTHOR: Blaha, V. (correspondence)

CORPORATE SOURCE: Subkat. Nukl. Med., Inst. Dalsi Vzdelav. Lek. Farmaceut., Praha.
SOURCE: Casopis Lekaru Ceskych, (1972) Vol. 111, No. 4, pp. 73-78.
ISSN: 0008-7335
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: Czech
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Various radioisotope examination methods are used in the diagnosis of liver function. General expansion was reached so far with the following techniques: determination of effective hepatic blood perfusion by means of radiocolloid; determination of the chromoexcretion power of the liver by means of 131I labeled Bengal rose; and determination of the extraction fraction of 131I labeled Bengal rose. The effective hepatic blood perfusion was reduced in all diseases associated with destruction and reconstruction of the liver parenchyma including steatorrhea and congestion. Chromoexcretory function of the liver, expressed by simple blood clearance of a heterogeneous dyestuff, is aggravated in all liver diseases including all cases of disturbed hepatic blood perfusion. The extraction fraction of Bengal rose is a value which does not depend on liver perfusion; it is reduced in cases of active hepatitis including active cirrhosis, and is increased in certain cases of stabilized chronic liver disease as well as in steatorrhea and congestive heart failure. These examinations are simple to perform and they cany a very slight radiation burden to the patient; they can be carried out in any radioisotope laboratory. Liver scintigraphy permits the size and shape of the liver to be studied, as well as the distribution of functional liver tissue, enabling morphology of the liver to be checked. This examination is of great importance in the diagnosis of focal Ever lesions and especially tumors. The properly performed and interpreted scintigram (estimation of the size and shape of the liver, distribution of activity in the liver, relation between hepatic and splenic activities) gives much valuable information concerning the differential diagnosis of diffuse liver disease.

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ACCESSION NUMBER: 0048570104 EMBASE
TITLE: Liver scintigrams in patients with cancer.
AUTHOR: Haynie, T.P. (correspondence); Jhingran, S.G.; Ilter, R.G.; Nelson, R.S.
CORPORATE SOURCE: Sect. Nucl. Med., Univ. Texas M.D. Anderson Hosp., Houston, TX, United States.
SOURCE: Cancer Bulletin, (1970) Vol. 22, No. 2, pp. 33-36.
ISSN: 0740-820X
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Radiopharmaceutic agents achieve localization in the liver by 2 main routes, the polygonal cells and the RES. An agent taken up by the polygonal cells is radio iodinated rose bengal.
Agents taken up by the RES are radio labeled colloidal particles varying in size from 0.1 to 1μ. Among the radionuclides utilized for labeling these compounds are I131, Au19 and Tc99 m. Colloids have the advantage of relatively constant concentration in the liver because the radio activity

is engulfed irreversibly by the reticuloendothelial cells. The advantages of Tc99m colloid are a short physical half life of 6 hr, optimum gamma emissions of 140 kev, and no beta irradiation. These physical characteristics permit the administration of radionuclides for higher activities, resulting in high count rates, improved counting statistics, and faster scanning speed. These things are achieved with a net reduction in radiation doses to the patient. The most commonly employed instruments for liver scanning are the rectilinear scanner with focusing collimator and the scintillation camera. Scanners require more time to cover the area of interest and survey only a small portion of the field at any given time. Scintillation camera photographs require relatively short exposure times and the camera continuously views the entire field, simplifying the evaluation of agitated, sick, or uncooperative patients. Multiple views are relatively easier to obtain with the gamma camera. In the authors' series, the incidence of abnormal scans in patients with hepatic neoplams was 82%, for Au196 and 81% for Tc99. The percentage of abnormal scans in 'normal' patients was 26% for Au196 and 11% for Tc99m.

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ACCESSION NUMBER: 0048445524 EMBASE
TITLE: Experience with percutaneous transhepatic choimujiography in community 'hospital.
AUTHOR: Fazel, I.
SOURCE: OHIO STJIEDJ., (1970) Vol. 66, No. 12, pp. 160-166.
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Percutaneous transhepatic cholangiography was performed in 14 jaundiced patients. This was done to differentiate obstructive from hepatocellular jaundice. In 9 cases we were able to demonstrate the site and nature of obstruction preoperatively. Five cases showed typical X ray evidence of a stone, 3 showed the tapered narrowing of cancer, and 1 showed the location of a stricture with a stone. These findings were confirmed at surgery. None of the 5 negative cases had extrahepatic obstruction. There were no complications in this series. We believe percutaneous transhepatic cholangiography is a safe, easy and reliable test which provides the following information: Differential diagnosis of extrahepatic obstructive from hepatocellular jaundice. Accurate, valuable information regarding the nature, exact site, and extent of obstruction.

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ACCESSION NUMBER: 0048443487 EMBASE
TITLE: Radioisotope investigation of the liver function in the cyclophosphan treatment of lung cancer (Russian).
AUTHOR: Starinsky, V.V.; Trakhtenberg, A.K.; Batinov, I.N.
SOURCE: MED. RADIOL. (MOSK.), (1970) Vol. 15, No. 4, pp. 308-311.
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB The results of functional studies on the liver (biochemical tests and the results of radioisotope liepatoitraphy with rose bengal

I131) were studied in 30 patients with lung cancer who were treated with large single doses of cyclophosphan. The radioisotope test enabled changes in the absorptive and excretory function of the liver to be detected before treatment. Radioisotope hepatography pointed to the essential toxic effect of cyclophosphan on the liver. This effect depended directly on the size of the dose and upon the clinical results of treatment The abnormal indices reverted practically to normal 23 wk after the end of chemotherapy. The radioisotope test proved to be more sensitive in determining the functional state of the liver in these patients than other routine laboratory techniques. This gives ground for recommending this test in the assessment of the recuperative capacity of the liver.

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ACCESSION NUMBER: 0048442689 EMBASE
TITLE: Liver scintiframs in patients with cancer.
AUTHOR: Haynie, T.P. (correspondence); Jhingran, S.G.; Liter, R.G.; Nelson, R.S.
CORPORATE SOURCE: Sect. Nucl. Med., Univ. Texas M.D. Anderson Hosp., Houston, TX, United States.
SOURCE: Cancer Bulletin, (1970) Vol. 22, No. 2, pp. 33-36.
ISSN: 0740-820X
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Radiopharmaceutic agents achieve localization in the liver by 2 main routes, the polygonal cells and the RES. An agent taken up by the polygonal cells is radio iodinated rose bengal. Agents taken up by the RES are radio labeled colloidal particles varying in size from 0.1 to 1μ. Among the radionuclides utilized for labeling these compounds are I131, Au and Tcwm. Colloids have the advantage of relatively constant concentration in the liver because the radio activity is engulfed irreversibly by the reticuloendothelial cells. The advantages of Tcm colloid are a short physical half life of 6 hr, optimum gamma emissions of 140 kev, and no beta irradiation. These physical characteristics permit the administration of radionuclides for higher activities, resulting in high count rates, improved counting statistics, and faster scanning speed. These things are achieved with a net reduction in radiation doses to the patient. The most commonly employed instruments for liver scanning are the rectilinear scanner with focusing collimator and the scintillation camera. Scanners require more time to cover the area of interest and survey only a small portion of the field at any given time. Scintillation camera photographs require relatively short exposure times and the camera continuously views the entire field, simplifying the evaluation of agitated, sick, or uncooperative patients. Multiple views are relatively easier to obtain with the gamma camera. In the authors' series, the incidence of abnormal scans in patients with hepatic neoplams was 82% for Au196 and 81% for Tc. The percentage of abnormal scans in 'normal' patients was 262 for Au 196 and 11% for TcMm.

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ACCESSION NUMBER: 0048198266 EMBASE
TITLE: Heavy particles fa therapy particules lourdes en therapie.
AUTHOR: Lawrence, J.H. (correspondence)
AUTHOR: Lawrence, J.H. (correspondence)
CORPORATE SOURCE: Berkeley, CA, United States.

SOURCE: Presse Medicale, (1964) Vol. 72, No. 2, pp. 1349-1352.
ISSN: 0755-4982
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB The use of heavy particles with high energy has permitted development of true 'radio-surgical'* techniques by application of very high quantities of energy to very small areas of the body. The possibilities of this method are illustrated by the results obtained with hypophyseal destruction in patients with advanced cancer, acromegaly or Cushing's disease and diabetic retinopathy.

L9 ANSWER 42 OF 92 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 0048195447 EMBASE
TITLE: Hepatic gammascanning. an aid in determining treatment policies for cancer involving the liver.
AUTHOR: Ariel, I.M. (correspondence); Molander, D.
CORPORATE SOURCE: Pack. Med. Found., New York, NY, United States.
SOURCE: American journal of surgery, (1969) Vol. 118, No. 1, pp. 66-71.
ISSN: 0002-9610
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Hepatic gammascanning has been found a most useful adjunct in determining treatment policies im patients with inlra abdominal cancer. In a series of over 500 hepatic scans, the results of IiMi were verified at either surgery or postmortem examination, and a diagnostic accuracy in determining the presence of metastases in the liver of 85.2% was obtained, False positive di au noses were made in 9.7% of the palienls and taise ncgalive diagnoses in 5.1%. The scan aided in determining the nature of hepatomegaly in 92 patients by demonstrating those portions of the liver replaced by cancer as well as those areas of compensatory hyperpla.sia. I rose bengal scans performed on patients with abnormal hepatic function tests demonstrating a normal appearing liver or diffuse patchy pickup are diagnosed as hepatitis rather than cancer. Forty eight patients of the series who were diagnosed as having primary parenchymal liver disease by presenting such a picture, subsec|uently improved by routine medical management, thus giving evidence of proper diagnosis. The hepatic scan provides information regarding the location of sites for introduction of the aspirating needle for biopsy, placement portals for purposes of external radiation therapy, and for the percutaneous administration of radioactive isotopes. The scans aid in the differentiation of an abdominal muss in juxtaposition to the liver from an intrinsic hepatic mass and thereby aid the physician to select the appropriate therapy. In 95 patients the hepatic scan aided in determining whether cancer chemotherapy was indicated. In the presence of severe damage of the parenchymal hepatic cells, extensive replacement of the liver by cancer, or in biliary obstruction with cirrhosis, radical cancer chemotherapy is considered to be contraindicated. Hepatic gammascanning served as an aid in following the course and plan of treatment of patients with lymphomas and hepatic cancer, in determining the blood flow to hepatic cancer, and in studying hepatic regeneration after lobectomy. The advantages and

limitations of the uammascuns, I rose bengal, and/or Au are discussed.

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ACCESSION NUMBER: 0048191065 EMBASE
TITLE: [Scintigraphic, anatomical and histological findings after partial irradiation of the liver with fast electrons]. Szintigraphische, anatomische und histologische befunde nach teilbestrahlung der leber mit schnellen elektronen.
AUTHOR: Marczinkowski, N.
CORPORATE SOURCE: Abt. fur Strahlenther. und Nukl. Med., Stadt. Rudolf Virchow Krankenh., Berlin.
SOURCE: Strahlentherapie, (1969) Vol. 137, No. 3, pp. 267-276.
ISSN: 0039-2073
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: German
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB The effect of partial irradiations of the liver with electrons from a betatron was studied with scintigraphy and histology. Even with a 2000 rd tumor dose, cold zones could be seen on the scintigram with colloidal gold Au198 and Rose Bengal I131 and fibrosis on the histological preparations. The liver must be considered as radiosensitive as the kidneys. The capacity for recovery of the liver is reduced after moderate doses (3000 to 4000 rd), because an almost irreversible fibrosis and even marked atrophy results from the irradiation.

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ACCESSION NUMBER: 0048128016 EMBASE
TITLE: Photoscannnig for assessment of liver damage from therapeutic external irradiation.
AUTHOR: Usselman, J.A. (correspondence)
CORPORATE SOURCE: U.S. Nav. Hosp., San Diego, CA, United States.
SOURCE: Journal of Nuclear Medicine, (1965) Vol. 6, No. 5, pp. 353.
ISSN: 0161-5505
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB The long held concept of the liver as a relatively radio-resistant organ can be effectively challenged by radioisciopc photoscannig of palienis whose liver nas been included in radiation therapy portals. This has been demonstrated in a series of patients subjected to external irradiation for testicular tumors. In such cases, the left lobe of the liver is included in the midline portals used to treat lymph node drainage areas. 198Au and Rose Bengal 131I photoscans made subsequent to the course of radiation treatment have shown sharp vertical cut-off of activity in the left lobe of the liver, demarcating the border of the radiation beam. Pretherapy liver scans available in some of these same cases showed normal activity in these areas. Case histories and photo scans of five patients (followed from 9 to 14 months) are presented. Although recent reports (Ingold et al Am. Journ. Roent. Vol 93 Number 1 Jan 1965) suggest administered whole

liver doses of 3500 rads in four weeks would appear safe as the patients showed a lack of activity in irradiated areas with as little as 2400 rads. The transition zone from normal function to lack of it was sharp, particularly with television enhancement. Follow-up and further studies are underway to evaluate doses required to produce dysfunction and to assess the degree of permanence of liver impairment.

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ACCESSION NUMBER: 0048123739 EMBASE
TITLE: [Effect of sublethal (400 r) irradiation on acquired famnuntty to bomotnmsptantabte].
Ehrlich tomours in mice Influence d'une irradiation sublethale (400 r) sur I'immunite acquise des souris vis-a-vis de la tumeur homotransplantable d'Ehrlich.
AUTHOR: Bazin, H. (correspondence); Duplan, J.-F.
CORPORATE SOURCE: Lab. Pasteur, Inst. du Radium, Paris.
SOURCE: Bulletin de l'Association Francaise pour l'Etude du Cancer, (1963) Vol. 50, No. 4-5, pp. 579-592.
ISSN: 0004-5497
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: French
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB A study was made of the effects of X-ray irradiation with 400 r, sometimes followed by treatment with isologpus haemopoietic cells from normal or immunized donors on immunity against Ehrlich'* tumour. The acquired immunity was reduced. The effect of the irradiation appears to be limited to transplantable tumours. It is likely that the persistent disappearance of acquired immunity observed after irradiation is due rather to loss of immunological information than to disturbances in the immunological capacity. Treatment of irradiated animals with isologous splenic cells appears to promote the return of acquired immunity. This may be due to the good effect of this treatment on the general condition of the animals and to enhancement of the secondary response by a primary response of the grafted cells that are immunologically active. Immunity against Ehrlich's ascites carcinoma was transferred by administration of splenic cells from immunized animals. When the animals, immunized prior to irradiation, were given cells from immune animals the acquired immunity was enhanced by the transferred immunity. A small amount of immunity can be transferred with bone marrow from immunized donors. This confirms the existence of immunologically active cells in the bone marrow of the immunized mice.

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ACCESSION NUMBER: 0048123717 EMBASE
TITLE: [Liver tumours provoked by irradiation].
Les tumeurs du foie provoquees par les radiations .
AUTHOR: Lacassaone, A. (correspondence)
CORPORATE SOURCE: Fond. Curie, Paris.
SOURCE: Revue Francaise d'Etudes Cliniques et Biologiques, (1964) Vol. 9, No. 3, pp. 269-272.
ISSN: 0370-4793
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: French
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010

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AB In the past few years studies by Lacassagne and Hurst on partial irradiation of die liver of rats have shown the following. Irradiation of two exteriorised lobes with 500 to 4000 r prior to administration of a diet containing butter yellow, leading to chronic poisoning, retards the process of carcinogenesis by slowing down the proliferation of elements of the biliary canaliculi and formation of new canaliculi. This toxic dye has a mainly carcinogenic effect on the liver and produces changes consisting of alternations of destruction of liver cells and regeneration of new canaliculi by proliferation. Finally these cells are transformed to a cholangiocarcinoma or hepatocarcinoma, depending on their degree of differentiation. The principal characteristics of these progressive stages of carcinogenesis are found in descriptions of the liver lesions provoked by chronic poisoning with other carcinogens: CC14,2acetylaminofluorene, dimethylnitrosamine, etc. They are also observed after chronic irradiation with radium, thorium or radioactive gold introduced into the body. The effect of irradiation with X -rays only, on the same hepatic lobes, also exteriorized, is completely different: the radio-resistant hepatocytes are not destroyed, even by doses of 4000 or 5000 r, but they become incapable of normal division. This leads to a slow and progressive atrophy of the irradiated lobes. The resultant insufficiency is compensated for by a parallel hypertrophy of the non-irradiated lobes, in which the mitotic activity of the liver cells maintains the functional physiological mass of the organ. In all cases one common lesion is found, whether irradiation is by an external source or by a radioactive isotope in the hepatic parenchyma: progressive fibrous transformation of the connective-vascular tissue, leading to cirrhosis.

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ACCESSION NUMBER: 0048123706 EMBASE
TITLE: [Experience with isotope nephrograpfay md rend edntigraphy in children].
Bisherige Erfahrungen mit der Isotopennephrographie und Nierenszintigraphie im Kindesalter.
AUTHOR: Ball, F. (correspondence); Friederiszick, F.K.; Wolf, R.
CORPORATE SOURCE: Inst, fur KJin. Strahlenk, Mainz, Germany.
SOURCE: Monatsschrift fur Kinderheilkunde, (1964) Vol. 112, No. 4, pp. 224-227.
ISSN: 0026-9298
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: German
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Isotope nephrography is a simple method for assessing the renal function of both kidneys separately. The only other method permitting such studies, clearance tests with ureteral catheter, requires much time, is complicated and not without risks. Disturbances in tone and mobility of the renal pelvis and ureters and mechanical interference with renal drainage can also be demonstrated reliably. Exposure to radiation is slight; even if renal function is seriously impaired the exposure is considered safe for children. The amount of test substance is minimal and does not constitute a renal stress, so that even markedly increased non-protein N values are not a contraindication for this examination. The only inconvenience to the child is an Lv. injection. This method is, therefore, also suitable for pediatrie practice and it yields important information. With scintigraphy localized parenchyma! defects due to inflammatory processes, tumours or cysts can be demonstrated.

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ACCESSION NUMBER: 0048123705 EMBASE
TITLE: [Tumour incidence following whole-body x-imdiation of hungry and thirsty white rats]. Tumorhaufigkeit nach Rontgen-Ganzbestrahlung weisser Ratten im Hunger- Und im Durstzustand.
AUTHOR: Reincke, U. (correspondence); Hunstein, W.; Stutz, E.
CORPORATE SOURCE: Klin. Strahleninst, Univ. Freiburg i. Br..
SOURCE: Naturwissenschaften, (1964) Vol. 51, No. 9, pp. 221-222.
ISSN: 0028-1042
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: German
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010
AB Hunger and thirst appeared to favour benign radiation-induced tumours in male animals. For all other tumours no positive or negative influence of the additional stress was found, as regards the tumour frequency. A statistical analysis of the findings will be given in a future article.

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ACCESSION NUMBER: 0048123701 EMBASE
TITLE: Effect of radiation protective substances on radiological treatment of cancer influence des radioprotecteurs sur le traitement radiologique des cancers.
AUTHOR: Maisan, J.R. (correspondence)
CORPORATE SOURCE: Dept. de Radiobiol., Cent. d'Etude de l'Energie Nucl..
SOURCE: MOL C. R. SOC. BIOI, (1964) Vol. 158, No. 1, pp. 193-197.
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010
AB Though AET has a protective effect on Landschutz ascites cells it can, under certain experimental conditions (irradiation of a large area of the body together with local irradiation of the tumour), considerably increase survival of protected mice in comparison to non-irradiated controls and mice irradiated but not protected.

L9 ANSWER 50 OF 92 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 0048123687 EMBASE
TITLE: [Urologic compttcations of radfo-earglcal treatment of cancer off the cervix]. Complicanze urologiche nel trattamento radio-chirurgico del carcinoma del collo dell'utero.
AUTHOR: Tetti, A. (correspondence); Chiaudano, O.
CORPORATE SOURCE: Clin. Ostet. e Ginecol., Univ. di Torino.
SOURCE: Minerva Ginecologica, (1964) Vol. 16, No. 4, pp. 133-167.
ISSN: 0026-4784
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: Italian

SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB The urologie complications observed after treatment of cancer of the cervix in pa-tients treated at the Department of Obstetrics and Gynaecology of the University of Turin from 1957 to 1962 are reported. For each year, all forms of treatment given in the 550 cases admitted during the same period are analysed in relation to the stage of the tumour. The aetiopathogenesis is discussed, and the difficulties encountered in this clinico-statistical assessment are considered. All methods of urologie examination are listed, and 27 cases out of 226 examinations made, in which urologie complications were found, are analysed and illustrated. No urological lesions could be observed in cases of cancer of the cervix uteri at the first stage treated radiologically, but a urinary change occurred when extensive surgery was associated with it. From this it was deduced that destructive surgery has a causal connection with the pathogenesis of the urological lesion. As for the second stage, there is the possibility of damage either by the irradiation treatment alone or radiosurgical therapy of surgery alone; this would demonstrate that the responsibility for the urological damage is attributable to a common factor in all these cases, and is probably related to the spread of the neoplasm and involvement of the parauterine tissues in the tumour. Such extension of the tumour beyond the limits of the uterus is evidenced by the therapeutic action of either radiology or surgery with the manifestation of lesions which more easily affect the urinary sector because of its close connections with the genital sector. It follows from this that the prime mover of the potential urological lesion is the extension of the tumour beyond the uterus, while the direct surgical or radiological cause constitute a releasing moment which acts on a tissue which is biologically predisposed to an abnormal reaction.

L9 ANSWER 51 OF 92 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 0048123686 EMBASE
TITLE: [Risks and damage due to x-ray exposure in chfldhood].
Pericoli e danni da esposizioni ai raggi Roentgen nell'eta infantile.
AUTHOR: Limonta, A. (correspondence)
CORPORATE SOURCE: Osp. dei Bambini, Milano.
SOURCE: Il Lattante, (1964) Vol. 35, No. 3, pp. 132-168.
ISSN: 0023-8864
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: Italian
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Foremost among the biological effects of X-ray radiation three problems emerge: (1) radiosensitivity, (2) risk, (3) effective damage. It is justifiable to admit a greater radiosensitivity of the tissues generally in children compared with grown-ups because of their high reproductive activity and the notable component of immature cells. The greater radiosensitivity of the tissues in children conditions a higher risk. This, on its part, is determined also by other factors, in the fust place by the dose:volume relationship which in relation to the size of the body is notably greater in the child than in the adult, and by the greater probability that during the long life that awaits the child an appreciable effect will be reached by summation of doses. As for somatic damage, that derived from radiography is remote. Only in tomographic and angiocardiographic examinations can

high doses be reached. Much greater exposure doses -cutaneous and gonadal -during radioscopy. It has been observed how for the examination of the thorax the relation between the skin dose for a minute of screening and the skin dose of a photograph is 27 :1. It is obvious that the greatest damaging effects are met with in radiotherapy. When we have radiotherapy for malignant lesions the risk from radiation takes second place to the risk of the malignant disease. The problem is important, however, when radiotherapy concerns treatment of benign affections; then the merits of the treatment should be carefully weighed against the risks and in case of acceptance of the latter only the smallest doses administered. Among the somatic damages from therapeutic use of radiation (X-ray, gamma) in children some are certain, such as disorders of bone growth, radiation nephritis, hypoplasia of the mamma, cataract; others are doubtful, like cancer of the thyroid, leukaemia from irradiation of the thymus. The uncertainties are much greater with regard to genetic damage. The degree of radiosensitivity of the infantile gonads is as yet quite unknown. With respect to mutagenic activity, it is admitted that in the male radiosensitivity of the gonads is less than in the adult because in children the germinal elements are quiescent and, according to observations by Mutter, mutagenic sensitivity is greater in the ripening than in the immature germinal elements. In females the risk of damage is greater in infancy and childhood because of the presence in the feminine gonads of a great number of ripening elements. There is no known threshold for genetic damage, and therein lies the danger of radiation of the gonads. The feminine gonads are in particular more exposed to Xrays thans male gonads. The feminine gonads can be reached by the direct bundle of rays as in abdominal examinations and can only rarely be protected by a lead shield as males can. In conclusion, it is stated that no medical treatment is free of risks. Ionizing radiations are subject to the same rule. The risk depends on the dose and the technique of irradiation. Used for medical purposes, X-rays often represent an indispensable means for diagnosis and cure. It is the duty of the radiologist as a diagnostician to use all his talents to lessen the dose to the niinifmim compatible with a fruitful examination, and in the therapeutic field to limit radiation to malignant diseases if possible and only to those benign ones which cannot be treated otherwise.

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ACCESSION NUMBER:	0048097226 EMBASE
TITLE:	[Diagnosis of primary or metastatic malignant tumors of the liver]. Moglichkeiten der diagnostik primarer oder metastiacher lebermalignome.
AUTHOR:	Birzle, H. (correspondence)
CORPORATE SOURCE:	Chir. Univ.-Klin., Freiburg, Germany.
SOURCE:	Medizinische Welt, (1966) Vol. 31, pp. 1610-1612. ISSN: 0025-8512
DOCUMENT TYPE:	Journal; Article
FILE SEGMENT:	CLASSIC
LANGUAGE:	German
SUMMARY LANGUAGE:	English
ENTRY DATE:	Entered STN: Jun 2010 Last Updated on STN: Jun 2010

AB On account of the doubtful clinical symptoms, early and ample use of selected laboratory tests, X-ray and isotope diagnosis (gold 198 colloidal, rose bengal I131) and direct methods of demonstration, especially laparoscopy, are indicated if there is a suspicion of malignant changes in the liver.

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ACCESSION NUMBER: 0048094960 EMBASE
TITLE: Response and recovery of liver to radiation as demonstrated by photoscans.
AUTHOR: Kurohara, S.S. (correspondence); Swensson, N.L.; Usselman, J.A.; George III, F.W.
CORPORATE SOURCE: Radioisot.-Radiother. Branch, Radiol. Dept., USN Hosp., San Diego, CA, United States.
SOURCE: Radiology, (1967) Vol. 89, No. 1, pp. 129-135.
ISSN: 0033-8419
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Au198 and rose bengal-I131 liver photoscans were obtained in 39 cancer patients, 31 being those with testicular carcinoma before, during, and/or after radiotherapy, using portals involving usually part of the liver. This technique was demonstrated to be a consistently more sensitive indicator of hepatic response to segmental irradiation than the conventionally used systemic liver function tests. The information gathered on hepatic response and recovery to segmental irradiation under radiotherapeutic conditions, as assessed by photoscans, may be summarized as follows: (a) the threshold dose-time value of response, i.e. the reduction or ablation of photodensity in the irradiated portion, is approx. 3,000 rad delivered in 30 days; (b) these changes are reversible, at least partially, even after radiotherapeutic doses of 4,000-5,200 rad, provided the entire liver is not exposed to these levels; (c) the reticuloendothelial component of liver tissue appears to be more radiosensitive than the hepatocellular component.

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ACCESSION NUMBER: 0048093864 EMBASE
TITLE: [Radioisotopes in the functional and morphologic study of hepatic diseases].
I radioisotopi nello studio funzionale e morfologico della patologia epatica.
AUTHOR: Roncoroni, L.
CORPORATE SOURCE: Ist. di Radiol., Univ. di Milano.
SOURCE: Radiologia Medica, (1967) Vol. 53, No. 1, pp. 46-59.
ISSN: 0033-8362
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: Italian
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Tests of hepatic function with radioactive tracers rose bengal, S35-sulfomethionine and iodized albumin complex are reviewed. These tests are easy to perform and sufficiently accurate to give useful indications in several pathologic conditions of the liver. The radiation dose to the patient is very low and accords perfectly with recent suggestions recommending a reduction in the exposure of the subject. A detailed study of liver function with Au198 from the scintigraphic point of view is then described. On the basis of the examination a large number of cases, using 3 different types of scanner, experimental studies on cold nodes in a liver phantom and in a large

number of pathologic cases (hydatid cyst, cirrhosis, primary and metastatic tumors) are analyzed. Some of the cases were patients with systemic cancer or leukemia. The importance acquired by radiology through scintigraphic study of liver is emphasized. Even if this method may be surpassed in precision by angiographic investigations, it is a simple test which is completely harmless and may be improved by the progress in instrumentation which is presumed to occur.

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ACCESSION NUMBER: 0048052952 EMBASE
TITLE: [A new method of examining skull radiographs, carotid angiograms and pneumoencephalograms].
Une nouvelle methode d-analyse des radiographies du crane des angiographies carotidiennes et des pneumo-encephalographies.
AUTHOR: Palvolgyi, R. (correspondence)
CORPORATE SOURCE: Clin. Radiol., Univ. de Budapest.
SOURCE: Annales de Radiologie, (1968) Vol. 11, No. 3-4, pp. 147-157.
ISSN: 0003-4185
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: French
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB A diagram of differing geometrical lines drawn on transparent perspex is described which could be of value in the interpretation of radiographs of the skull, carotid angiograms and PEG's, since it allows the rapid checking of anatomical relations and facilitates measurements. The apparatus is simple and may be constructed by the radiologist.

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ACCESSION NUMBER: 0047915680 EMBASE
TITLE: Scintillation scanning of the liver.
AUTHOR: Achaval, A. (correspondence); Tauxe, W.N.; Gambill, E.E.
CORPORATE SOURCE: Mayo Grad. Sch. of Med., Univ. of Minnesota, Rochester, MN, United States.
SOURCE: Mayo Clinic proceedings, (1965) Vol. 40, No. 3, pp. 206-215.
ISSN: 0025-6196
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Rose bengal I131 scintillation scanning involves minimal discomfort, risk, and radiation exposure, and can be performed on very sick patients. No scans have been falsely suggestive of space-occupying lesions, even in the presence of severe parenchymatous disease. Of the 36 scans performed on patients with space-occupying lesions, 23 were diagnostic and 9 were suggestive of such lesions. The authors believe that if hepatic scans were performed routinely before doing needle biopsies, the percentage of false-negative biopsies would be reduced. If there is no obvious impairment of hepatic function, nonvisualization of the gallbladder is an indication for further studies of the biliary tract. The method produces scans that are reproducible and can be utilized to follow the evolution of tumors and their response to treatment.

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ACCESSION NUMBER: 0047717379 EMBASE
TITLE: Scintigraphy and portography. Their value in the diagnosis of liver disease.
AUTHOR: Doehner, G.A.; Powers, J.C.; Ruzicka Jr., F.F.
SOURCE: RADIOLOGY, (1960) Vol. 74, No. 6, pp. 912-927.
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB The authors compare portal venography with photoscintigraphy utilizing radioactive materials. 60 patients were studied by scintigraphy and 84 cases by splenic portography. In the scintihepatography, a technique projecting the scintigram of the liver directly and simultaneously on the X-ray film was employed. From a practical standpoint by virtue of the effect of the inverse square law and the absorption in liver tissue, the results of scintigraphy depict a slice of liver tissue comprising largely the anterior half of the right hepatic lobe and the left hepatic lobe throughout its entire depth. The patient is placed prone on the scintiscanner - the liver being within the area of the cassette. If I131 rose bengal is employed, a fatty meal is given 3 hours after the injection in order to evaluate the radioactive bile from the gallbladder. This is followed by a laxative 4 to 5 hours after injection to minimize the irradiation of the intestines. Approximately 7 to 8 microcuries/kg. body weight of I131 rose bengal is injected intravenously with routine precautions. The scintigraphic procedure requires approximately 30 min. with the equipment described at a scanning speed of 15 mm. per second. The scintigram should be obtained at a time of optimum uptake as determined by periodic uptake determinations. If colloidal Au198 is used, 7 to 8 microcuries/kg. body weight are used. One hour is sufficient to allow for deposition of the colloid in the reticulo-endothelial system of the normal liver tissue; however, 2 or 3 hr. between injection and scintigraphic procedures may be considered advisable if the liver circulation and/ or uptake are expected to be reduced, as in liver cirrhosis. In the epleno-portography procedure, 70% urokon is injected directly into the spleen by percutaneous puncture and films are obtained serially at 2, 4, 6, 8, 12, 16, 24 and 32 sec. following the beginning of injection with a time consumption of 10 to 15 sec. for the injection through a number # 19 gauge spinal needle. The normal appearances are described as well as the findings with: cirrhosis of the liver, hepatic neoplasm, and inflammatory disease. The relative merits of the 2 different types of procedure are thereafter discussed. In cirrhosis of the liver, the overall radioactivity is diminished and the scintigram rather spotty. Differentiation of this pattern from the met astatic pattern may at times be difficult or impossible. The combination of the cirrhotic liver pattern with a high splenic uptake occurs only with liver cirrhosis and this may become a sign of high diagnostic value. The vasculogram is distinctly positive in 65% of the cases and shows some minor changes in an additional 20%. The hepatogram is positive in 55% of the cirrhotics. In metastatic carcinoma large confluent defects of irregular outline are usually seen. Two liver abscesses were studied and these presented defects of activities similar to those seen with neoplasm. Scintihepatograms obtained with either Au198 or I131 rose bengal are approximately equivalent in accuracy in those conditions where there is normal liver tissue between lesions as in hepatic carcinosis; but in liver cirrhosis, Au198 appears to be preferable. Moreover, demonstration of an inverse liver-to-spleen uptake ratio is highly suggestive of liver cirrhosis. It

must be remembered that each of these 2 methods employ different physiological mechanisms and may give certain information exclusively which is not provided by the other method. In general the scintihepatogram is more acceptable to both patient and physician than the splenic portogram which is probably not as safe a procedure.

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ACCESSION NUMBER: 0047636421 EMBASE
TITLE: Diagnosis of tumours of the liver with au198 (russian).
AUTHOR: Agranat, V.Z. (correspondence); Shchitkov, K.G.
CORPORATE SOURCE: P.A. Gerts en State Oncol. Inst., Moscow.
SOURCE: MED.RADIOL., (1964) Vol. 1, pp. 42-47.
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB A comparative study was made of scintigrams of the liver of healthy rabbits after intravenous injection of colloidal radioactive gold (Au198) and scintigrams after transplantation of a Brown-Pearce carcinoma into the rabbit's liver. The radioactive preparation with an activity of 3.5 and 10 me./kg. was injected into the auricular vein after dilution to 1 ml. with physiological saline. Scanning of the liver began from 15 min. to 1 hr. after injection of the isotope. The clearest picture of the liver and, at the same time, the least body background were observed in scintigrams taken after an exposure of not less than 30 min. following injection of Au198. Scanning of the liver revealed tumour nodules measuring 2 + 2 cm. in the liver, the thickness of the organ itself being 5 cm. On the basis of clinical experience in the diagnosis of liver tumours by scanning with I131-bengal rose, the authors suggest that the clinical application of the Au198 method would result in more certain detection and more accurate localization of tumour nodules in the liver than at present obtainable with Im-bengal rose. Au198 gives a higher radiation load to the liver than I131-bengal rose. The results suggest that in oncological practice it is essential to use both Au198 and I131-bengal rose; the choice of isotope must be made in each concrete case depending on the purpose of the investigation and the patient's condition.

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ACCESSION NUMBER: 0047584608 EMBASE
TITLE: [The diagnosis of tumours of the right hypochondriac region by gammagraphy with labelled bengal rose].
Contribution au diagnostic des tumeurs de l'hypocondre droit par la gammagraphie au rose bengale marque.
AUTHOR: Caroli, M.
SOURCE: Marseille chirurgical, (1959) Vol. 11, No. 1, pp. 1-15.
ISSN: 0025-4045
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: French
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Of the various diagnostic methods for tumours in the right hypochondriac region there is not one so far that has not caused

occasional errors and not one is without diagnostic limitations. The author categorically rejects diagnostic laparotomy, which is liable to tempt the surgeon to rash conclusions, especially when he is suddenly faced with some surprising discovery. Liver biopsy is probably the most widely used method for the diagnosis of tumours of the liver. When performed blindly, it often leads to errors of diagnosis, as it may happen that healthy liver tissue is caught, or other tissue from the liver region. The procedure may even threaten life when an echinococcus cyst is damaged, and may end in death when an arterial haemangioma is punctured. Laparoscopy is a harmless method; however, it never reveals alterations deep inside the liver or situated in the cupola, but only superficial phenomena associated with a deep-seated process. Thirty years ago, roentgenograms were made after injection of thorium X, which was seemingly well tolerated, but always caused the formation of malignant tumours at a later stage. The dangerous method mentioned was replaced by phlebography of the splenic and portal veins, which gives excellent visualization of the intrahepatic vessels. This procedure is not always harmless either, since the 50-60 ml. of contrast medium injected into the spleen occasionally cause rupture of this organ. It was therefore necessary to find a method which harboured less danger and was also less painful. These conditions are best fulfilled by gammagraphy with labelled Bengal rose. The Bengal rose is injected intravenously and is well tolerated. It has a very short half-life and is excreted within 48 hr. The gamma-ecintigrams afford a very clear picture of the hepatic situation and are excellently suitable for the demonstration of parasitary affections, e.g. echinococcus cysts. However, they only allow the demonstration of tumours of more than 2 cm. in diameter and give rise to difficulties in the differentiation of an intrahepatic hiatus or of compression atrophy of a liver lobe. Combined with laparoscopy, however, the gammagrams are of inestimable value for accurate surgical diagnosis. Possible sources of error for the various methods are described and the views defended are illustrated with numerous clinical examples.

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ACCESSION NUMBER:	0047460425 EMBASE
TITLE:	[Possibilities and limits of examination of the liver by means of radio-isotopes]. Moglichkeiten und grenzen der radioisotopenuntersuchung der leber.
AUTHOR:	Wolf, F. (correspondence); Kleyensteiber, G.
CORPORATE SOURCE:	Med. Klin. mit Poliklin., Univ. Erlangen-Nurnberg.
SOURCE:	Materia Medica Nordmark, (1962) Vol. 14, No. 7, pp. 310-319.
DOCUMENT TYPE:	Journal; Article
FILE SEGMENT:	CLASSIC
LANGUAGE:	German
SUMMARY LANGUAGE:	English
ENTRY DATE:	Entered STN: Jun 2010 Last Updated on STN: Jun 2010

AB The diagnosis of hepatic disease by using radio-isotopes is based on the labelling of chemical compounds which are taken up by the liver from the blood stream and can be stored or eliminated by it. Continuous observation of the fate of the compounds used in the organism is possible by the γ-ray emitting isotopes. As measuring apparatus the scintillation counter is used, with which, in the framework of a clearance test, the strictly organ-specific bromsulphalein can be determined, by which a measure for the blood flow can be obtained. As compared with this very rough method, the test using bengal red, labelled with I131 via ion exchangers, is much more exact, even jaundice is not a contra-indication to this examination, which involves hardly any metabolic stress. The

results of the measurements are recorded graphically, the impulse rates at the different moments of examination being related to the storage maximum. The bengal red test makes it possible to evaluate various therapeutic measures, such as application of heat, or the effects of drugs administered. To these staining methods are opposed clearance tests using radiocolloids. The fundamental physiological difference resides in the fact that in the case of a suitable particle size the substance is taken from the blood stream by the reticulo-endothelial system of the liver. Here, too, the amount of blood circulating through the liver is of very special importance. The organ can further be demonstrated intravitally by scintigraphy. A picture is obtained of the distribution of its activity by punctiform, automatic palpation of the hepatic region by a lead-protected scintillation counter and recording by a mechanical system or on a photographical film. Thus, inter alia tumours and metastases can be demonstrated.

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ACCESSION NUMBER: 0047458918 EMBASE
TITLE: Diagnosis of liver disease by radioisotope scanning.
AUTHOR: Wagner Jr., H.N. (correspondence); McAfee, J.G.; Mozley, J.M.
CORPORATE SOURCE: Diagn. Radioisot. Lab., Johns Hopkins Hosp., Baltimore, MD, United States.
SOURCE: archives of internal medicine, (1961) Vol. 107, No. 3, pp. 324-334.
ISSN: 0730-188X
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB Using an automatic photoscanning technique developed at this hospital, a series of 150 patients are studied for suspected disease in the right upper quadrant of the abdomen. Improvements in photographic recording, together with optimal collimation and efficient scintillation crystals, have yielded a technique of considerable clinical usefulness. The spatial distribution of radioactive colloidal gold, taken up by hepatic reticulo-endothelial cells, and radioactive rose bengal is studied. The liver could be accurately localized by superimposing the photos can over an abdominal X-ray made simultaneously. In normal subjects, the borders of the liver were clearly demarcated, and the radioactivity was uniformly distributed within. Malpositions of the liver seen in patients with subphrenic abscesses or congenital maldevelopment were easily seen. Localized decreases in radioactivity were found in patients with amoebic and pyogenic intrahepatic abscesses, cavernous haemangiomata, ecchinococcus cysts, arteriovenous fistulae, and both primary and metastatic intrahepatic tumours. Multiple areas of decreased radioactivity were seen in patients with multiple metastases. Diffuse decrease in activity, usually in association with enlargement of the total photoscan area, was observed in biliary, cardiac, and Laennec's cirrhosis. The demonstration of rose bengal is in the intestinal tract outside the hepatic photoscan, differentiated complete biliary obstruction from parenchymal disease. Little difference was found between normal subjects and patients with infectious hepatitis, unless the latter was extremely severe. The photos cans were particularly helpful in the differential diagnosis of right upper quadrant abdominal pain, indicating whether the patient had a subphrenic abscess or space-occupying intrahepatic lesion, in the differential diagnosis of abdominal masses, and in enabling an accurate follow-up therapy in intrahepatic abscesses. Major surgery was

avoided in many patients when the hepatic photoscan revealed space-occupying lesions that were biopsied by needle aspiration. Clinical examples of these categories have been presented.

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ACCESSION NUMBER: 0047012034 EMBASE
TITLE: [Theories on the pathology of light (clinical dermatology)].
Notions sur la pathologie de la lumiere (clinique dermatologique).
AUTHOR: Gougerot, L.
SOURCE: Journal des Praticiens; Revue Generale de Clinique et de Therapeutique, (1947) Vol. 61, No. 16, pp. 181-186.
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: CLASSIC
LANGUAGE: French
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: Jun 2010
Last Updated on STN: Jun 2010

AB This important study of what H. Gougerot terms 'lucites' opens with an account of the physico-biological theories of light (nature of radiations, mode of action, absorption etc.) and proceeds to discussion of: (1) Affections due to the direct action of light (Jausion's 'photo-traumatism'); (2) photosensitization and (3) H. Gougerot's photodermatoses of carcerogenic radio-lucites. (1) Of affections due to direct action of light the commenest is simple 'sunburn' with immediate erythema during exposure and secondary erythema appearing within two hours of it. General manifestations may also be present. Local desquamation and pigmentation finally occur. More rarely the erythema is accompanied by purpura and localized oedema (blisters, eschars). In some sensitized subjects exposure to sunlight may provoke urticaria, prurigo or solar eczema on the exposed areas, sometimes spreading to areas not exposed. Solar vitiligo constitutes an accentuation of an abnormality - congenital or otherwise - of pigment formation. Parasitic achromia also results from an accentuation by sunlight of an abnormality of pigmentation due to the presence of parasites (generally Microsporon furfur). Local irritation is not always confined to the skin but may affect the conjunctiva (actinic conjunctivitis). The primary erythema is of caloric nature due to the red and infra-red rays which act through local rise of temperature leading to reflex vasodilatation. The secondary erythema is actinic, due to the blue, violet and above all ultraviolet rays which act by the production (through destruction of proteins of the skin) of an intermediate substance identical in all respects with histamine. This pathogenesis is disputed by some authors who believe the ultraviolet rays to exert a direct paralysing action on the vasomotor sympathetic nerves (Audiat). (2) Photosensitization: the clinical symptoms are as described above but more intense, showing an increased sensitivity of the skin due to various causes: exogenous (eosin, bengal rose, acridine, tars and petroleum oils, bergamot oil, certain plants etc.) and endogenous photosensitizers, the latter including avitaminosis PP, porphyrin etc. and accounting for pellagra, pellagroid erythema, hydroa vacciniforme, erythemato-bullous lucitis etc. (3) H. Gougerot's cancerogenic photodermatosis or solar radio-iucitis types are brought about by repeated exposures (short ultraviolet waves) in predisposed subjects (fragility or tendency to premature senility of the skin, endogenous photosensitization etc.) and strikingly resemble radio-dermitis (cutaneous atrophy, hyperkeratosis, telangiectases, possible development of epitheliomas). They include cancerogenic dermatoses (xeroderma pigmenta turn, cancer of farmers and sailors, precancerous senile keratosis etc.) and chronic, non-cancerogenic radio-lucitis (Brocq's 'decollete' dermatosis, pellagroid

erythema, punctate, erythemato-squamous lucitis simulating erythematous lupus etc.).

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ACCESSION NUMBER: 0009854900 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.
TITLE: Copper(II) as an efficient scavenger of singlet molecular oxygen..
AUTHOR: Joshi, P.C. (correspondence)
CORPORATE SOURCE: Photobiology Laboratory, Industrial Toxicology Research Centre, Mahatma Gandhi Marg, India..
SOURCE: Indian journal of biochemistry & biophysics, (Aug 1998) Vol. 35, No. 4, pp. 208-215.
ISSN: 0301-1208
COUNTRY: India
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: MEDLINE
LANGUAGE: English
ENTRY DATE: Entered STN: Mar 2010
Last Updated on STN: Mar 2010

AB Reactive oxygen species (ROS) are considered to play an important role in tissue injury that damages DNA, proteins, carbohydrates and lipids. Increased production of ROS and/or decreased efficiency of antioxidant defense system has been shown to contribute to a number of degenerative processes including cancer and AIDS. Among the various forms of ROS, singlet oxygen (1O2), which is generated predominantly in photosensitization reactions, is of particular physiologic significance because of its selectively long life in aqueous solution, its ability to cross the cell membrane barrier and high reactivity towards biomolecules. In the present study, the 1O2 scavenging potential of Cu(II) has been evaluated by (i) generating 1O2 by photosensitization of rose bengal (RB), (ii) establishing 1O2 quenching with recognized 1O2 scavengers like sodium azide, DABCO and (iii) examining the effect of Cu(II) in scavenging of 1O2. The results revealed that Cu(II) inhibited the rate of 1O2 production by 88%, 68%, 40%, 21% and 10% at a concentration of 10(-2) M, 5 x 10(-3) M, 10(-3) M; 5 x 10(-4) M, and 10(-4) M, respectively. Under similar experimental condition, sodium azide or DABCO at 10(-2) M inhibited the 1O2 production by 86% and 88%, respectively. Other 1O2 generating photosensitizer like hematoporphyrin, riboflavin and methylene blue also produced identical results with Cu(II) but Fe(II), Fe(III), Zn(II) or As(III) did not produce any quenching of 1O2. Presence of a copper binding peptide (Gly-Gly-His) in the reaction system reduced the 1O2 scavenging capacity of Cu(II) by 52-66% depending upon the UV dose. The 1O2 scavenging property of metal ion appears to have an advantage to reduce the oxidative damage of photodynamic reactions in order to prevent ROS-induced toxicity reactions.

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ACCESSION NUMBER: 0006633198 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.
TITLE: [Scintigraphy of the liver with 131-I-bengal rose and determination of ferritin in the blood during combined radiotherapy of cancer of the cervix]. Stsintigrafiia pecheni s 131-I-bengal'skim rozovym i opredelenie ferritina v krovi pri sochetanno-luchevom lechenii raka sheiki matki..
AUTHOR: Modnikov, O.P. (correspondence)
SOURCE: Meditsinskaia radiologiia, (Oct 1983) Vol. 28,

No. 10, pp. 66-67.
ISSN: 0025-8334
COUNTRY: Russian Federation
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: MEDLINE
LANGUAGE: Russian
ENTRY DATE: Entered STN: Mar 2010
Last Updated on STN: Mar 2010
AB Altogether 117 patients with cervical cancer on combined radiation therapy were examined. They were examined before the start of radiation therapy, after a focal dose of 35-40 Gy, immediately after the termination of irradiation and in 3-12 mos. after treatment. Using a method of dynamic computerized scintigraphy with 131I-Bengal rose absorptive-excretory function of the liver was studied; the level of ferritin was determined too. Combined radiation therapy was shown to cause hepatic disorders that manifest themselves in the suppression of absorptive-excretory function of the liver and a decreased level of ferritin. The most noticeable changes were recorded in the patients examined immediately after the termination of irradiation. Results of both methods show good correlation.

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ACCESSION NUMBER: 0006067465 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.
TITLE: Response and recovery of liver to radiation as demonstrated by photoscans..
AUTHOR: Kurohara, S.S. (correspondence); Swensson, N.L.; Usselman, J.A.; George 3rd., F.W.
SOURCE: Radiology, (Jul 1967) Vol. 89, No. 1, pp. 129-135.
ISSN: 0033-8419
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: MEDLINE
LANGUAGE: English
ENTRY DATE: Entered STN: Mar 2010
Last Updated on STN: Mar 2010

L9 ANSWER 66 OF 92 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 0006024291 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.
TITLE: Treatment of inoperable cancer of the liver by intra-arterial radioactive isotopes and chemotherapy..
AUTHOR: Ariel, I.M. (correspondence); Pack, G.T.
SOURCE: Cancer, (May 1967) Vol. 20, No. 5, pp. 793-804.
ISSN: 0008-543X
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: MEDLINE
LANGUAGE: English
ENTRY DATE: Entered STN: Mar 2010
Last Updated on STN: Mar 2010

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ACCESSION NUMBER: 0005794051 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.

TITLE: Hepatic gammascanning. An aid in determining treatment policies for cancer involving the liver..
AUTHOR: Ariel, I.M. (correspondence); Molander, D.
SOURCE: American journal of surgery, (Jul 1969) Vol. 118, No. 1, pp. 5-14.
ISSN: 0002-9610
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: MEDLINE
LANGUAGE: English
ENTRY DATE: Entered STN: Mar 2010
Last Updated on STN: Mar 2010

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ACCESSION NUMBER: 0005660127 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.
TITLE: [The effect of autoantibodies on the function of organs and the growth of malignant tumors].
Vliianie autoantitel na funktsiiu organov i rost zlokachestvennykh opukholei..
AUTHOR: Nikolaev, A.I. (correspondence); Burshtein, C.I.; Muratkhodzhaev, N.K.; Makarov, G.F.
SOURCE: Biulleten' eksperimental'noi biologii i meditsiny, (Jan 1968) Vol. 65, No. 1, pp. 94-96.
ISSN: 0365-9615
COUNTRY: Russian Federation
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: MEDLINE
LANGUAGE: Russian
ENTRY DATE: Entered STN: Mar 2010
Last Updated on STN: Mar 2010

L9 ANSWER 69 OF 92 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 0003561208 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.
TITLE: [Radionuclide research on liver and kidney function in thyroid cancer after radioiodine therapy].
Radionuklidnye issledovaniia funktsii pecheni i pochek pri rake shchitovidnoi zhelezy posle radioiodoterapii..
AUTHOR: Vasil'ev, L.I. (correspondence); Rozdil'skii, S.I.; Tkachenko, G.I.
SOURCE: Meditsinskaia radiologiia, (Mar 1987) Vol. 32, No. 3, pp. 38-41.
ISSN: 0025-8334
COUNTRY: Russian Federation
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: MEDLINE
LANGUAGE: Russian
ENTRY DATE: Entered STN: Mar 2010
Last Updated on STN: Mar 2010
AB A study was made of liver and renal function using radionuclide methods in 51 thyroid cancer patients on radio-iodine therapy. Multimodality examination of the patients revealed no clinical manifestations of hepatocellular and renal failure even in significant therapeutic activities up to 40 GBq and more. Hepatography and renography showed a decrease in absorptive and secretory hepatocytic function, an increase in the period of hippuran half-life and a decrease in total renal function. The revealed changes were of moderate nature, stable and

related both to hypothyrosis and a radiation factor.

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ACCESSION NUMBER: 0002512380 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.
TITLE: Partition of rose bengal anion from aqueous medium into a lipophilic environment in the cell envelope of Salmonella typhimurium: implications for cell-type targeting in photodynamic therapy..
AUTHOR: Dahl, T.A. (correspondence); Valdes-Aguilera, O.; Midden, W.R.; Neckers, D.C.
CORPORATE SOURCE: Center for Photochemical Sciences, Bowling Green State University, OH 43403..
SOURCE: Journal of photochemistry and photobiology. B, Biology, (Nov 1989) Vol. 4, No. 2, pp. 171-184. ISSN: 1011-1344
COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: MEDLINE
LANGUAGE: English
ENTRY DATE: Entered STN: Mar 2010 Last Updated on STN: Mar 2010

AB Photodynamic therapy employs photosensitizers for the selective destruction of tumor tissue while sparing the surrounding healthy tissue. Photosensitization may also be applied to the selective eradication of microorganisms. Photosensitized inactivation requires that the sensitizer bind to the target and therefore the factors that determine photosensitizer binding are critical to photosensitization selectivity. This paper reports the determination of some features of the binding site of the potent photosensitizer, Rose Bengal, in Salmonella bacteria and describes some of the factors that affect this binding. The shift in the wavelength of maximum fluorescence and experiments with the fluorescence quencher TNBS indicate that Rose Bengal is located in a non-aqueous compartment such as the outer membrane. The dye does not seem to significantly accumulate inside the cell, but rather to accumulate in the outer membrane. Time-dependent changes in sensitizer localization in two strains of Salmonella typhimurium that differ in cell wall formation, LT-2 and TA1975, correspond to their differences in susceptibility to photosensitized killing. Therefore these results provide clues to the factors that determine photosensitization selectivity. Understanding this phenomenon is essential for the efficient design of selective photosensitizers and for optimizing antitumor and antiviral photodynamic therapy.

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ACCESSION NUMBER: 0002150860 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.
TITLE: Primary effects of singlet oxygen sensitizers on eggs and embryos of sea urchins..
AUTHOR: Marthy, H.J. (correspondence); Murasecco-Suardi, P.; Oliveros, E.; Braun, A.M.
CORPORATE SOURCE: Laboratoire Arago (Unite associee au CNRS 117), Universite P. et M. Curie, Banyuls-sur-Mer, France..
SOURCE: Journal of photochemistry and photobiology. B, Biology, (Nov 1990) Vol. 7, No. 2-4, pp. 303-315. ISSN: 1011-1344
COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article

FILE SEGMENT: MEDLINE
LANGUAGE: English
ENTRY DATE: Entered STN: Mar 2010
Last Updated on STN: Mar 2010

AB Photodynamic effects of rose bengal, a well-known singlet oxygen sensitizer, and of haematoporphyrin derivative, the most widely used sensitizer in photodynamic therapy of tumours, could be visualized using sea urchin eggs and embryos. This biological material is a valuable model for the analysis of mechanisms and/or sites of the photodynamic action occurring in any living tissue. Depending on the sensitizer used, singlet oxygen may be identified as the main mediator of the cytotoxic effects observed. Besides observations made on the living, in particular within the context of fertilization ability of the egg cell, gross damages of the cells are morphologically analysed by scanning electron microscopy. The results support the working hypothesis explaining the different susceptibility of healthy and tumour cells for photosensitization as a cell cycle phenomenon.

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ACCESSION NUMBER: 0001647184 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.
TITLE: 131I-rose bengal therapy in hepatoblastoma patients..
AUTHOR: de Kraker, J. (correspondence); Hoefnagel, C.A.; Voute, P.A.
CORPORATE SOURCE: Werkgroep Kindertumoren, Emma Kinderziekenhuis/het kinder AMC, Amsterdam, The Netherlands..
SOURCE: European journal of cancer (Oxford, England : 1990), (1991) Vol. 27, No. 5, pp. 613-615.
ISSN: 0959-8049
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: MEDLINE
LANGUAGE: English
ENTRY DATE: Entered STN: Mar 2010
Last Updated on STN: Mar 2010

AB If conventional treatment modalities have failed in hepatoblastoma patients and no distant metastases can be demonstrated therapy with radionuclide agents can be considered. In 6 patients diagnostic technetium-99m (99mTc)-disofenin and two iodine-131 (131I)-rose bengal scans were made. 2 patients demonstrated specific uptake of disofenin. One of these had a positive scintigram with radiolabelled rose bengal. This patient was subsequently treated with 1.1 GBq 131I-rose bengal. No toxicity was observed. A clear decrease in the level of alpha-fetoprotein indicated a response and demonstrated that this radiopharmaceutical can be used for tumour targeted radiation therapy in selected patients with therapy resistant tumours.

L9 ANSWER 73 OF 92 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 0000323631 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.
TITLE: [Absorptive and excretory function of the liver in intensive preoperative irradiation of stomach cancer patients]. Poglotitel'no-vydelitel'naia funktsiia pecheni pri intensivnom predoperatsionnom obluchenii bol'nykh rakom zheludka.

AUTHOR: Ikonnikov, A.I. (correspondence); Gabuniia, R.I.; Berdov, B.A.; Senokosov, N.I.
SOURCE: Meditsinskaia radiologiia, (Feb 1977) Vol. 22, No. 2, pp. 56-60.
ISSN: 0025-8334
COUNTRY: Russian Federation
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: MEDLINE
LANGUAGE: Russian
ENTRY DATE: Entered STN: Mar 2010
Last Updated on STN: Mar 2010

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ACCESSION NUMBER: 0000168032 EMBASE
COPYRIGHT: MEDLINE® is the source for the citation and abstract of this record.
TITLE: Multinuclide evaluation of hepatic mass lesions..
AUTHOR: Koenigsberg, M. (correspondence); Freeman, L.M.
SOURCE: CRC critical reviews in clinical radiology and nuclear medicine, (Apr 1975) Vol. 6, No. 2, pp. 113-152.
Refs: 139
ISSN: 0091-6536
COUNTRY: United States
DOCUMENT TYPE: Journal; General Review; (Review)
FILE SEGMENT: MEDLINE
LANGUAGE: English
ENTRY DATE: Entered STN: Mar 2010
Last Updated on STN: Mar 2010

AB Radionuclide imaging with labeled colloids is widely used to evaluate and localize primary and metastatic tumors of the liver. The method is fairly sensitive, but the nonspecificity of focal defects remains a significant limitation. Lesions such as cysts and abscesses appear as space occupying areas that are indistinguishable from neoplastic masses. Utilizing a variety of radiopharmaceuticals, one may obtain additional information concerning such lesions. Hepatic blood flow scintiphotography is performed with the Anger camera following the intravenous injection of a high activity, small volume bolus of 99m-Tc pertechnetate. Vascular lesions such as hepatomas or hemangiomas will show increased activity in the lesion which should easily differentiate them from avascular processes such as abscesses, cirrhotic pseudomasses and most metastatic lesions, all of which remain "cold" on these flow studies. If one does not posses a camera, useful blood pool rectilinear scans of these lesions may be obtained with 131-I or 99m-Tc human serum albumin or ionic 113m-In. Additional information concerning the metabolic activity of focal defects on the colloid study is obtained using 75-Se-selenomethionine or 67-Ga. The former is an indicator of active protein metabolism while the latter attaches to lysozymes of metabolically active cells. With either agent, hepatomas show avid uptake, metastatic lesions show variable uptake, and cysts or chronic pseudotumors of cirrhosis show poor uptake. The two agents differ in abscess detection where 75-Se-selenomethionine uptake is poor while 67-Ga concentration generally is intense. 131-I-Rose Bengal occasionally may prove useful in demonstrating impression by an atypically positioned gallbladder or focal dilatation of the biliary tract as a cause of a defect on the colloid scan. Ultrasound examination may complement the radionuclide studies. It is useful for corroborating the presence of lesions and for evaluating their consistency (cystic vs. solid). The information obtained from this multinuclide approach has made scintigraphy examination of the livermore specific. After the completion of this non-invasive series of studies, one generally may venture an intelligent opinion concerning the etiology of the space occupying disease.

L9 ANSWER 75 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:545413 BIOSIS
DOCUMENT NUMBER: PREV200200545413
TITLE: Methods for treating conditions and illnesses associated with abnormal vasculature.
AUTHOR(S): Flower, Robert W. [Inventor, Reprint author]; Alam, Abu [Inventor]
CORPORATE SOURCE: Hunt Valley, MD, USA
ASSIGNEE: Akorn, Inc.
PATENT INFORMATION: US 6443976 20020903
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Sep. 3, 2002) Vol. 1262, No. 1. http://www.uspto.gov/web/menu/patdata.html. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 23 Oct 2002
Last Updated on STN: 23 Oct 2002
AB Use of radiation-absorbing dyes (e.g., indocyanine green (ICG), fluorescein, rose bengal) and photodynamic dyes (e.g., hematoporphyrins, aminolevulinic acids, porphyrins, merocyanines, porphycenes, porfimer sodium, verteporfin, Photofrin II, PH-10, chlorins, zinc phthalocyanine, purpurins, pheophorbides, monoclonal antibody-dye conjugates of any of the foregoing dyes) for the treatment of conditions associated with abnormal vasculature, including, generally, lesions, and, more specifically, tumors (cancerous and benign) and choroidal neovascularization (CNV) associated with age-related macular degeneration (ARMD).

L9 ANSWER 76 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 1997:208893 BIOSIS
DOCUMENT NUMBER: PREV199799508096
TITLE: Comparative studies on the tolerance to photoinduced cutaneous inflammatory reactions by psoralen and rose bengal.
AUTHOR(S): Kumar, Janak R.; Haberman, Herbert F.; Ranadive, Narendranath S. [Reprint author]
CORPORATE SOURCE: Dep. Pathol., Univ. Toronto, Toronto, ON M5S 1A8, Canada
SOURCE: Journal of Photochemistry and Photobiology B Biology, (1997) Vol. 37, No. 3, pp. 245-253. CODEN: JPPBEG. ISSN: 1011-1344.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 12 May 1997
Last Updated on STN: 12 May 1997
AB The photochemotherapeutic value of topical 8-methoxypsoralen (8-MOP) plus UVA irradiation has been well recognized. The phototoxicity associated with psoralen plus UVA (PUVA) therapy is hallmarked by an increase in vascular permeability (iVP), the accumulation of polymorphonuclear leukocytes (aPMN) and erythema formation in situ. Rose bengal (RB) plus UVA-VIS light (320-700 nm) produces a similar acute inflammatory response, but without immediate or delayed erythema and perceptible edema. This study describes some of the parameters involved in inflammatory reactions evoked by PUVA and the results are compared with RB-induced phototoxic reactions. The rates of iVP and aPMN with a 3 h pulse were quantified using 125I-albumin and 51Cr-labelled PMNs respectively. The erythemal response was graded visually. 8-MOP cream was applied topically, while RB was injected intradermally in rabbit skin before UVA-VIS (9.4 J cm-2) irradiation. The data show that there is no

significant difference in the rates of iVP, aPMN and erythema formation between normal skin sites and mast cell-depleted skin sites when challenged with 8-MOP plus light. These results suggest that in situ mast cells do not play a significant role in 8-MOP-photoinduced acute cutaneous inflammatory reactions, in contrast with RB-photoinduced reactions. The iVP and aPMN responses are minimal or absent in sites subjected to repeated exposure to 8-MOP plus light for three or more consecutive days, suggesting the establishment of a desensitized/unresponsive state. Moreover, 8-MOP-photo-desensitized sites do not produce iVP and aPMN of the same magnitude as the normal (naive) skin sites when challenged with RB plus light. Similarly, RB-photo-desensitized sites do not produce iVP and aPMN of the same magnitude as the native skin sites when challenged with 8-MOP plus light. The desensitization and cross-desensitization of skin sites to 8-MOP- or RB-photoinduced reactions suggest that there is either direct attack on the target cell(s), thereby removing the ability to express adhesion molecules, such as endothelial leukocyte adhesion molecule 1 (ELAM-1) or intercellular adhesion molecule 1 (ICAM-1), involved in the accumulation of inflammatory cells, or downregulation of the secretion/release of putative agent(s), such as interleukin 1 (IL-1) and tumor necrosis factor alpha (TNF-alpha), responsible for the initiation and progression of cutaneous inflammations.

L9 ANSWER 77 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 1996:479667 BIOSIS
DOCUMENT NUMBER: PREV199699194923
TITLE: Photodynamic crosslinking of proteins. I. Model studies using histidine- and lysine-containing N-(2-hydroxypropyl) methacrylamide copolymers.
AUTHOR(S): Shen, Hui-Rong; Spikes, John D.; Kopecekova, Pavla; Kopecek, Jindrich [Reprint author]
CORPORATE SOURCE: Dep. Bioeng., Univ. Utah, Salt Lake City, UT 84112, USA
SOURCE: Journal of Photochemistry and Photobiology B Biology, (1996) Vol. 34, No. 2-3, pp. 203-210.
CODEN: JPPBEG. ISSN: 1011-1344.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Oct 1996
Last Updated on STN: 24 Oct 1996

AB One of the mechanisms by which cells might be damaged during the photodynamic therapy (PDT) of tumors is via the covalent crosslinking of proteins to proteins or to other molecules in the cell. It has been suggested that photodynamically generated singlet oxygen interacts with photo-oxidizable amino acid residues such as His, Cys, Trp and Tyr in one protein molecule to generate reactive species, which in turn interact non-photochemically with residues of these types or with free amino groups in another protein molecule to form a crosslink. In some cases, photochemically generated free radicals may be involved in crosslinking. This paper describes studies on the use of N-(2-hydroxypropyl) methacrylamide (HPMA) copolymers containing epsilon-aminocaproic acid side chains terminating in His (P-Acap-His) or Lys (P-Acap-Lys) as models for the photodynamic crosslinking of proteins. The model copolymer P-Acap-His had a weight-averaged molecular weight of about 22 000 and contained four to five His residues per copolymer molecule. The model copolymer P-Acap-Lys had a weight-averaged molecular weight of about 18 000 and contained four to five Lys residues per copolymer molecule. The extent of photocrosslinking, as sensitized by rose bengal, was estimated by measuring the increase in the viscosity of model copolymer solutions after various periods of illumination. The extent of intermolecular crosslinking was estimated from the changes in molecular weight distribution of samples before and at the end of illumination as determined by size exclusion chromatography.

Photodynamic crosslinking occurred between P-Acap-His molecules and between P-Acap-His and P-Acap-Lys molecules. The higher the concentration of macromolecules in the solution, the higher is the yield of intermolecular crosslinking. Oxygen was necessary for crosslinking, and azide inhibition studies indicated the involvement of singlet oxygen.

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ACCESSION NUMBER: 1995:493231 BIOSIS
DOCUMENT NUMBER: PREV199598507531
TITLE: Visible light induced changes in the immune response through an eye-brain mechanism (photoneuroimmunology).
AUTHOR(S): Roberts, Joan E.
CORPORATE SOURCE: Fordham Univ., 113 West 60th St., New York, NY 10023, USA
SOURCE: Journal of Photochemistry and Photobiology B Biology, (1995) Vol. 29, No. 1, pp. 3-15.
CODEN: JPPBEG. ISSN: 1011-1344.
DOCUMENT TYPE: Article
General Review; (Literature Review)
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Nov 1995
Last Updated on STN: 9 Nov 1995

AB The immune system is susceptible to a variety of stresses. Recent work in neuroimmunology has begun to define how mood alteration, stress, the seasons, and daily rhythms can have a profound effect on immune response through hormonal modifications. Central to these factors may be light through an eye-brain hormonal modulation. In adult primates, only visible light (400-700 nm) is received by the retina. This photic energy is then transduced and delivered to the visual cortex and by an alternative pathway to the suprachiasmatic nucleus (SCN). The SCN is a part of the hypothalamic region in the brain believed to direct circadian rhythm. Visible light exposure also modulates the pituitary and pineal gland which leads to neuroendocrine changes. Melatonin, norepinephrine and acetylcholine decrease with light activation, while cortisol, serotonin, gaba and dopamine levels increase. The synthesis of vasoactive intestinal polypeptide (VIP), gastrin releasing peptide (GRP) and neuropeptide Y (NPY) in rat SCN has been shown to be modified by light. These induced neuroendocrine changes can lead to alterations in mood and circadian rhythm. All of these neuroendocrine changes can lead to immune modulation. An alternative pathway for immune modulation by light is through the skin. Visible light (400-700 nm) can penetrate epidermal and dermal layers of the skin and may directly interact with circulating lymphocytes to modulate immune function. However, even in the presence of phototoxic agents such as eosin and rose bengal, visible light did not produce suppression of contact hypersensitivity with suppresser cells. In contrast to visible light, in vivo exposure to UV-B (280-320 nm) and UV-A (320-400 nm) radiation can only alter normal human immune function by a skin mediated response. Each UV subgroup (B, A) induces an immunosuppressive response but by differing mechanisms involving the regulation of differing interleukins and growth factors. Some effects observed in humans are: inhibition of allergic contact dermatitis; inhibition of delayed hypersensitivity to an injected antigen; prolongation of skin-graft survival and induction of a tumor-susceptible state. The following article will review much of the progress in this field and explore possible areas of future research.

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ACCESSION NUMBER: 1994:180831 BIOSIS
DOCUMENT NUMBER: PREV199497193831
TITLE: Photodynamic therapy mediated induction of early response

genes.

AUTHOR(S): Luna, Marian C.; Wong, Sam; Gomer, Charles J. [Reprint author]

CORPORATE SOURCE: Clayton Ocular Oncol. Cent., Childrens Hosp. Los Angeles, 4650 Sunset Boulevard, Mail Stop 67, Los Angeles, CA 90027, USA

SOURCE: Cancer Research, (1994) Vol. 54, No. 5, pp. 1374-1380.
CODEN: CNREA8. ISSN: 0008-5472.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 26 Apr 1994
Last Updated on STN: 26 Apr 1994

AB Photodynamic therapy (PDT) generates reactive oxygen species which initiate the cytotoxic events of this tumor treatment. We demonstrate that PDT mediated oxidative stress induced a transient increase in the early response genes c-fos, c-jun, c-myc, and egr-1 in murine radiation-induced ribrosarcoma cells. Incubation of exponentially growing cells with porphyrin based photosensitizers in the dark also induced an increase in mRNA levels of early response genes. However, the xanthine photosensitizer, rose bengal, produced increased c-fos mRNA levels only following light treatment. Nuclear runoff experiments confirmed that the induction of c-fos mRNA is controlled in part at the level of transcription. Likewise, a chloramphenicol acetyltransferase reporter construct containing the major c-fos transcriptional response elements was inducible by porphylin and PDT. Signal transduction pathways associated with PDT mediated c-fos activation were examined by treating cells with protein kinase inhibitors. Staurosporine and 1-(5-isoquinolinesulfonyl)-2-methylpiperazine inhibited PDT mediated c-fos activation while N-(2-guanidinoethyl)-5-isoquinoline-sulfonamide had no effect. In addition, quinacrine, which can inhibit phospholipase activity, blocked PDT induced c-fos mRNA expression. These results suggest that photosensitizer mediated oxidative stress acts through protein kinase-mediated signal transduction pathway(s) to activate early response genes.

L9 ANSWER 80 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 1994:173435 BIOSIS

DOCUMENT NUMBER: PREV199497186435

TITLE: An efficient oxygen independent two-photon photosensitization mechanism.

AUTHOR(S): Smith, G.; McGimpsey, W. G.; Lynch, M. C.; Kochevar, I. E.; Redmond, R. W. [Reprint author]

CORPORATE SOURCE: Wellman Lab. Photomed., Dep. Dermatol., Harvard Med. Sch., Mass. General Hosp., Boston, MA 02114, USA

SOURCE: Photochemistry and Photobiology, (1994) Vol. 59, No. 2, pp. 135-139.
CODEN: PHCBAP. ISSN: 0031-8655.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 26 Apr 1994
Last Updated on STN: 27 Apr 1994

AB A novel oxygen-independent photosensitization mechanism from the upper triplet state (T-n) of rose bengal has been demonstrated by selectively populating T-n by sequential two-color laser excitation. Products formed from T-n inhibit red blood cell acetylcholinesterase and decrease viability of P388D-1 mouse macrophage monocyte cells as measured by trypan blue exclusion assay. Laser flash photolysis studies indicate that T-n reacts efficiently, as evidenced by permanent photobleaching of T-1 absorption, with chemical yields

approaching unit efficiency. This mechanism may have application for oxygen deficient photosensitization under high intensity, pulsed laser irradiation.

L9 ANSWER 81 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 1994:24433 BIOSIS
DOCUMENT NUMBER: PREV199497037433
TITLE: Functional aspects of secondary carotenoids in Haematococcus lacustris (Girod) Rostafinski (Volvocales) IV. Protection from photodynamic damage.
AUTHOR(S): Hagen, C.; Braune, W. [Reprint author]; Greulich, F.
CORPORATE SOURCE: Inst. General Botany, Friedrich Schiller Univ. Jena, von-Hase-Weg 3, 07743 Jena, Germany
SOURCE: Journal of Photochemistry and Photobiology B Biology, (1993) Vol. 20, No. 2-3, pp. 153-160.
CODEN: JPPBEG. ISSN: 1011-1344.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 25 Jan 1994
Last Updated on STN: 26 Jan 1994

AB The function as an antioxidant seems to represent the central principle of chemopreventive activity of carotenoids against cancer initiation and promotion. The aim of this study was to clarify whether or not extrachloroplastic-accumulated secondary carotenoids (astaxanthin, canthaxanthin and echinenone) of Haematococcus lacustris (Girod) Rostafinski exhibit a similar antioxidative activity in protecting the cell of this green alga from photo-oxidative damage. In vivo experiments were performed, investigating the effect of UV radiation, artificial photosensitizers (rose bengal, toluidine blue) and copper-mediated lipid peroxidation on suspensions of flagellates which contained different amounts of secondary carotenoids. The results revealed a higher resistance of red flagellates to photo-oxidative stress. The findings are discussed with respect to the shading function of secondary carotenoids and known protective mechanisms involving quenching of reactive oxygen species and radical reactions in plant cells. A hypothesis for this functional aspect of secondary carotenoids in H. lacustris preventing injury by excessive insolation is suggested: ketocarotenoids, first accumulated in lipid vacuoles around the nucleus, might act as a physico chemical barrier, protecting particularly the genome from free radical-mediated damage.

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ACCESSION NUMBER: 1993:332240 BIOSIS
DOCUMENT NUMBER: PREV199345026965
TITLE: Controlled tissue damage induced by Rose Bengal, a photodynamic drug: Animal experiment.
AUTHOR(S): Ectors, N. [Reprint author]; Xiang, D.; Geboes, K.; Stas, M.; De Wever, I.
CORPORATE SOURCE: Dep. Pathol., Catholic University Leuven, Leuven, Belgium
SOURCE: Gastroenterology, (1993) Vol. 104, No. 4 SUPPL., pp. A397.
Meeting Info.: 94th Annual Meeting of the American Gastroenterological Association. Boston, Massachusetts, USA. May 15-21, 1993.
CODEN: GASTAB. ISSN: 0016-5085.
DOCUMENT TYPE: Conference; (Meeting)
LANGUAGE: English
ENTRY DATE: Entered STN: 16 Jul 1993
Last Updated on STN: 17 Jul 1993

L9 ANSWER 83 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 1993:218399 BIOSIS
DOCUMENT NUMBER: PREV199344102899
TITLE: Localization and persistence of Rose Bengal in unicellular eukaryote and in experimental tumor.
AUTHOR(S): Croce, A. C. [Reprint author]; Wyroba, E.; Cuzzoni, C.; Bottiroli, G. [Reprint author]
CORPORATE SOURCE: C.S. Istochimica CNR, Pavia, Italy
SOURCE: Spinelli, P. [Editor]; Dal Fante, M. [Editor]; Marchesini, R. [Editor]. Int. Congr. Ser. - Excerpta Med., (1992) pp. 737-741. International Congress Series; Photodynamic therapy and biomedical lasers. Publisher: Excerpta Medica, 305 Keizersgracht, PO Box 1126, Amsterdam, Netherlands; Excerpta Medica, New York, New York, USA. Series: International Congress Series. Meeting Info.: International Conference. Milan, Italy. June 24-27, 1992.
CODEN: EXMDA4. ISSN: 0531-5131. ISBN: 0-444-81430-2.
DOCUMENT TYPE: Article
Conference; (Meeting)
LANGUAGE: English
ENTRY DATE: Entered STN: 3 May 1993
Last Updated on STN: 9 Jun 1993

L9 ANSWER 84 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 1991:343700 BIOSIS
DOCUMENT NUMBER: PREV199192043075; BA92:43075
TITLE: IODINE-131 ROSE BENGAL THERAPY IN HEPATOBLASTOMA PATIENTS.
AUTHOR(S): DE KRAKER J [Reprint author]; HOEFNAGEL C A; VOUTE P A
CORPORATE SOURCE: WERKGROEP KINDERTUMOREN, EMMA KINDERZIEKENHUIS/HET KINDER AMC, MEIBERGDREEF 9, NL-1105 AZ AMSTERDAM, NETHERLANDS
SOURCE: European Journal of Cancer, (1991) Vol. 27, No. 5, pp. 613-615.
CODEN: EJCAEL. ISSN: 0959-8049.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 31 Jul 1991
Last Updated on STN: 31 Jul 1991
AB If conventional treatment modalities have failed in hepatoblastoma patients and no distant metastases can be demonstrated therapy with radionuclide agents can be considered. In 6 patients diagnostic technetium-99m (99mTc)-disofenin and two iodine-131 (131I)-rose bengal scans were made. 2 patients demonstrated specific uptake of disofenin. One of these had a positive scintigram with radiolabelled rose bengal. This patient was subsequently treated with 1.1 GBq 131I-rose bengal. No toxicity was observed. A clear decrease in the level of alpha-fetoprotein indicated a response and demonstrated that this radiopharmaceutical can be used for tumour targeted radiation therapy in selected patients with therapy resistant tumours.

L9 ANSWER 85 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 1990:287408 BIOSIS
DOCUMENT NUMBER: PREV199090018254; BA90:18254
TITLE: ENCIRCLING PHOTOTHROMBOTIC THERAPY FOR CHOROIDAL GREENE MELANOMA USING ROSE BENGAL.

AUTHOR(S): WINWARD K E [Reprint author]; DABBS C K; OLSEN K; WATSON B D; HERNANDEZ E; DIBERNARDO C

CORPORATE SOURCE: BASCOM PALMER EYE INST, PO BOX 016880, MIAMI, FLA 33101, USA

SOURCE: Archives of Ophthalmology, (1990) Vol. 108, No. 4, pp. 588-594.
CODEN: AROPAW. ISSN: 0003-9950.

DOCUMENT TYPE: Article

FILE SEGMENT: BA

LANGUAGE: ENGLISH

ENTRY DATE: Entered STN: 23 Jun 1990
Last Updated on STN: 24 Jun 1990

AB The photosensitizing dye rose bengal in combination with an argon green laser (514.5 nm) operated at low power was evaluated in 49 rabbit eyes for treatment of experimental choroidal Greene melanoma by circumferential occlusion of the choroidal vasculature. The effects of no treatment, laser alone, and rose bengal alone were observed in 16 control eyes, all of which showed rapid tumor growth. Immediately following rose bengal injection, 3 minutes of continuous irradiation at 20.4 W/cm2 (500-μm spot, 40 mW) applied in three to four circumferential revolutions around the base of tumor nodules, without direct tumor irradiation, produced peripheral vascular occlusion and consequent tumor inhibition. Similar therapy at higher laser intensity (30.6 W/cm2) and with multiple retreatment sessions (28.0 to 30.6 W/cm2) resulted in increased tumor-inhibiting effect. Low-dose rose bengal phototherapy did not appear to directly damage ocular tissues adjacent to treatment areas; however, when multiple irradiation sessions were given within a short interval, an increased incidence of retinal detachment was observed.

L9 ANSWER 86 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 1987:211997 BIOSIS

DOCUMENT NUMBER: PREV198783109627; BA83:109627

TITLE: PHOTOKINETIC AND PHOTOPHYSICAL MEASUREMENTS OF THE SENSITIZED PHOTOOXIDATION OF THE TRYPTOPHYL RESIDUE IN N ACETYLTRYPTOPHANAMIDE AND IN HUMAN SERUM ALBUMIN.

AUTHOR(S): REDDI E [Reprint author]; LAMBERT C R; JORI G; RODGERS M A J

CORPORATE SOURCE: CENT FOR FAST KINETICS RES, UNIV OF TEX AT AUSTIN, AUSTIN, TEX 78712-1064, USA

SOURCE: Photochemistry and Photobiology, (1987) Vol. 45, No. 3, pp. 345-352.
CODEN: PHCBAP. ISSN: 0031-8655.

DOCUMENT TYPE: Article

FILE SEGMENT: BA

LANGUAGE: ENGLISH

ENTRY DATE: Entered STN: 9 May 1987
Last Updated on STN: 9 May 1987

AB The photosensitized oxidation of 10-100 μM N-acetyl-L-tryptophanamide (NATA) in neutral aqueous solution and in the presence of various dyes proceeds by a pure O2 (1Δg)-involving mechanism. Incorporation of the tryptophyl (Trp) residue into the polypeptide chain of human serum albumin (HSA) has no influence on the mechanism and efficiency of Trp photooxidation when sensitized either by methylene blue, a non-binding dye, or by rose bengal, a dye that gives non-covalent 1:1 complexes with HSA. This is due to the location of the Trp residue in close proximity of the protein surface and, in the case of rose bengal, to the coincidence of the photophysical properties (including the quantum yield of O2(1Δg) generation) for the free and HSA-bound dye. Hematoporphyrin also binds to HSA with 1:1 stoichiometry,

although at a different site from rose bengal. Bound Hp again displays photophysical properties very similar with those of free Hp: however, the efficiency of Trp photooxidation in HSA is about 5-fold higher than in NATA owing to a limited rearrangement of the protein structure, induced by Hp binding, which enhances the probability of chemical quenching of O2(1Δg) by the indole ring.

L9 ANSWER 87 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 1987:148485 BIOSIS
DOCUMENT NUMBER: PREV198783077535; BA83:77535
TITLE: PHOTOOXYGENATION OF METHYL LINOLEATE SENSITIZED BY PORPHYRINS AND DYES IN ACETONITRILE SOLUTION AND AQUEOUS EMULSION SYSTEMS.
AUTHOR(S): OHTANI B [Reprint author]; NISHIDA M; NISHIMOTO S-I; KAGIYA T
CORPORATE SOURCE: DEP HYDROCARBON CHEM, FAC ENG, KYOTO UNIV, KYOTO 606, JPN
SOURCE: Photochemistry and Photobiology, (1986) Vol. 44, No. 6, pp. 725-732.
CODEN: PHCBAP. ISSN: 0031-8655.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 21 Mar 1987
Last Updated on STN: 21 Mar 1987

AB Photooxygenation reaction of an unsaturated fatty acid ester, methyl linoleate (methyl 9-cis, 12-cis-octadecadienoate, ML-H), sensitized by porphyrins and several types of dyes has been studied in aqueous emulsion and acetonitrile solution under air at 40°C. The oxygen (O2) uptake proceeded slowly in the absence of sensitizers upon irradiation of an aqueous emulsion and an acetonitrile solution of ML-H (20 mM) at λex > 290 nm (11.4 and 6.1 μmol h-1, respectively). The rate of O2 uptake was enhanced by a catalytic amount (0.1 mM) of porphyrins and dyes; hematoporphyrin (HP), zinc tetrakis (N-methyl-4-pyridiniumyl)porphyrin (ZnTMPyP), methylene blue (MB), rose bengal (RB), acridine orange (AO), and acriflavine (AF). In both systems, the sensitized photooxidation of ML-H by O2 proceeded equimolarly to produce isomeric mixture of C9 and C13 hydroperoxides having the trans cis and trans, trans, conjugated diene configurations, independent of the types of the sensitizers used. The yield ratio of trans,trans/trans, cis products in the MB-sensitized photooxygenation in acetonitrile and aqueous emulsion were almost equal (0.32 and 0.35, respectively). The sensitizing activity of the sensitizers, as measured by the quantum yield of O2 uptake, increased in the order: MB (.simeq. 0) < ZnTMPyP < RB < HP < AF < AO in the aqueous emulsion and AO < AF < HP < RB = MB in the acetonitrile solution. The order in homogeneous acetonitrile solution was interpreted by the sensitizing ability of the dyes to produce singlet oxygen, while that in heterogeneous acqueous emulsion was correlated to the lipophilicity of dyes as well as the singlet-oxygen-producing ability.

L9 ANSWER 88 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 1987:119193 BIOSIS
DOCUMENT NUMBER: PREV198732058310; BR32:58310
TITLE: USING MOSQUITO LARVAE TO STUDY PHOTOCHEMICAL TOXICITY AND PHOTOCHEMICAL PATHWAYS.
AUTHOR(S): HALL R G [Reprint author]; TOSK J
CORPORATE SOURCE: LOMA LINDA UNIV, LOMA LINDA, CA, USA
SOURCE: Journal of Cell Biology, (1986) Vol. 103, No. 5 PART 2, pp. 520A.
Meeting Info.: TWENTY-SIXTH ANNUAL MEETING OF THE AMERICAN

SOCIETY FOR CELL BIOLOGY, WASHINGTON, D.C., USA, DEC. 7-11, 1986. J CELL BIOL.
CODEN: JCLBA3. ISSN: 0021-9525.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 28 Feb 1987
Last Updated on STN: 28 Feb 1987

L9 ANSWER 89 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 1980:154847 BIOSIS
DOCUMENT NUMBER: PREV198069029843; BA69:29843
TITLE: PHOTODYNAMIC MUTAGENICITY IN MAMMALIAN CELLS.
AUTHOR(S): GRUENER N [Reprint author]; LOCKWOOD M P
CORPORATE SOURCE: DEP ENVIRON HEALTH SCI, SCH PUBLIC HEALTH TROP MED, NEW ORLEANS, LA 70112, USA
SOURCE: Biochemical and Biophysical Research Communications, (1979) Vol. 90, No. 2, pp. 460-465.
CODEN: BBRCA9. ISSN: 0006-291X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Photoactivation of bound rose bengal in the presence of O2 causes mutations in Chinese hamster embryo cells. Visible light by itself can also cause a slight increase in mutation frequency. Both reactions are amplified by D2O. Singlet O2 reactive compounds, β-carotene and 1,3-diphenylisobenzofuran, diminish the toxic and mutagenic effects. 12-O-tetradecanoyl-phorbol-13-acetate, a potent tumor promoter, increases the number of mutants induced by the photodynamic action. The enhancement of mutagenesis by D2O and its reduction by specific singlet O2 antagonists suggest that this active O2 species is the direct mutagen.

L9 ANSWER 90 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 1979:261319 BIOSIS
DOCUMENT NUMBER: PREV197968063823; BA68:63823
TITLE: AN EVALUATION OF TECHNETIUM-99M PYRIDOXYLIDENE ISO LEUCINE A NEW HEPATO BILIARY RADIO PHARMACEUTICAL.
AUTHOR(S): HAMADA N [Reprint author]; SHIBATSUJI H; YASUDA N; TANAKA K; MAEDA K; YOSHIKAWA I; YOSHIMURA H; HOSOGI Y; OZAKI M
CORPORATE SOURCE: DEP ONCORADIOL, NARA MED UNIV, KASHIHARA, NARA 634, JPN
SOURCE: Journal of Nara Medical Association, (1978) Vol. 29, No. 3, pp. 526-533.
CODEN: NAIZAM. ISSN: 0469-5550.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: JAPANESE
AB 99mTc-pyridoxylideneisoleucine (99mTc-(Sn)-Pl) was developed for the scintigraphic imaging of the hepatobiliary system in humans with normal and hepatobiliary diseases because of its rapid removal from the liver. Visualization of the gallbladder and the biliary tract is more rapid and clear compared to 131I-BSP [3,3'-diiodosulfobromophthalein sodium] or 131I-Rose Bengal. It is useful in the diagnosis of intrahepatic stones or bile duct cancer, which show abnormalities in scintigraphy. 99mTc-(Sn)-Pl is an excellent scintigraphic agent since it has little scattered radiation and shows a clear cholescintigram in a short examination time.

L9 ANSWER 91 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN

ACCESSION NUMBER: 1976:214300 BIOSIS
DOCUMENT NUMBER: PREV197662044300; BA62:44300
TITLE: RESIDUAL SPLENIC FUNCTION IN THE PRESENCE OF THOROTRAST ASSOCIATED HEPATIC TUMOR CASE REPORT.
AUTHOR(S): SPENCER R P; TURNER J W; SYED I B
SOURCE: Journal of Nuclear Medicine, (1976) Vol. 17, No. 3, pp. 200-202.
CODEN: JNMEAQ. ISSN: 0161-5505.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable
AB A 50 yr old man received i.v. colloidal thorium dioxide (Thorotrast) 27 yr previously. Scintiscans with 99mTc-sulfur colloid and 131I-rose bengal revealed an extensive intrahepatic defect. At operation, the lesion was an infiltrating hemangiosarcoma. The spleen was small but the chronic internal radiation of the spleen had not completely destroyed the function of radiocolloid uptake. Review of the literature disclosed other cases in which the spleen was still capable of accumulating radiocolloid some years after Thorotrast administration. In at least 1 other instance, radiocolloid uptake was not accompanied by splenic ability to clear Howell-Jolly bodies: a dissociation of splenic functions. The effects of the internal radiation dose to the spleen from Thorotrast are discussed and compared with the effects of external radiation. The discrepancy between the effects of the 2 doses may be related to the high relative biologic effectiveness of the α-rays from Thorotrast compared with X- radiation, to nonuniformity of distribution, and to the effects of reticuloendothelial blockade.

L9 ANSWER 92 OF 92 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
ACCESSION NUMBER: 1974:70795 BIOSIS
DOCUMENT NUMBER: PREV197410070795; BR10:70795
TITLE: DYE SENSITIZED PHOTO OXIDATION OF PHENANTHRENE.
AUTHOR(S): DOWTY B J; BRIGHTWELL N E; LASETER J L; GRIFFIN G W
SOURCE: Biochemical and Biophysical Research Communications, (1974) Vol. 57, No. 2, pp. 452-456.
CODEN: BBRCA9. ISSN: 0006-291X.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

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(FILE 'HOME' ENTERED AT 12:46:06 ON 07 JUL 2010)

FILE 'REGISTRY' ENTERED AT 12:46:18 ON 07 JUL 2010
L1 45 S ROSE BENGAL

FILE 'CAPLUS' ENTERED AT 12:46:30 ON 07 JUL 2010
L2 3739 S L1
L3 103 S L2 AND (CANCER OR TUMOR OR TUMOUR OR NEOPLASM)
L4 24 S L3 AND (RADIATION OR X-RAY OR RADIOTHERAPY OR RADIOSENSITIZAT
L5 24 DUP REM L4 (0 DUPLICATES REMOVED)

FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 12:47:34 ON 07 JUL 2010
L6 10800 S "ROSE BENGAL"
L7 701 S L6 AND (CANCER OR TUMOR OR TUMOUR OR NEOPLASM)
L8 115 S L7 AND (RADIATION OR X-RAY OR RADIOTHERAPY OR RADIOSENSITIZA
L9 92 S L8 AND PD<20020905
L10 0 S L9 AND AUGER

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L11             0 S L9 AND MONOCHROMATIC

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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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